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EDITORIALS†

FEDERAL WAGNER BILL, S. 1620: AND ITS BACK-DOOR SUBSTITUTE, HOUSE RESOLUTION, H. R. 6635

Wagner Health Bill, S. 1620.—In recent issues of the OFFICIAL JOURNAL, the scope and significance of the Wagner Health Bill (S. 1620), have been discussed;* and in our comment, last month, we wrote:

It has been stated that the Wagner Health Bill will probably not be voted out of committee during the present session of Congress; but that does not mean it will not reappear, with stronger backing than ever, in the succeeding Congress.

* * *

Senator Wagner's Amendments to H.R. 6635.—What was forecast at that time has come true, only more quickly than then appeared likely, and not in a new or revised and separately introduced Senate bill at the next Congress, but in one, in the form of what might be called a back-door substitute, in the last days, probably, of the current Congressional session! The sponsor of the new effort was none other than the New York Senator, Robert F. Wagner, himself, author-in-chief of S. 1620, who, through certain amendments to a resolution concerning the Social Security Board, in a bill (H.R. 6635), that originated in the House of Representatives, has progressed well on the way to passage with a "health" measure even more far-reaching than his original and much talked of "Wagner Bill" (S. 1620).

H.R. 6635, the Social Security measure here referred to, having been favorably acted upon by the House of Representatives, at this writing is pending in the Senate (where Senator Wagner introduced his amendments), and now is under consideration by its Finance Committee.

The menace to public health and medical practice interests, as embodied in H.R. 6635, lies in the fact that its "health provisions," or amendments, are a sort of "riders" to a measure of major scope, that may be sent to a Conference Committee of Senators and Representatives, before which, however much otherwise it may be discussed, no hearings might be held on Senator Wagner's attached health amendments! Moreover, since reports of a

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

* In June issue, on page 447; in July issue, on page 4.

Conference Committee have privileged places on the Congressional calendars, and are not open for amendment, such health or medical service inclusions may go on to passage, in this case as part of a Social Security measure, the major purposes of which may have implications necessitating, in the opinion of Congress, prompt action.

* * *

Responsibility of County Societies and Individual Physicians, Regarding H.R. 6635.—During the two weeks prior to the writing of these comments, the officers of the component county societies of California Medical Association were made acquainted with these facts, to enable them to write to their respective Congressmen and the two United States Senators.

It will be in order, therefore, for every member of the California Medical Association promptly to write to United States Senators Hiram Johnson and Sheridan Downey, and acquaint them with the reaction of members of the California medical profession on the medical service amendments proposed by Senator Wagner of New York. If Congress is still in session at the time of such writing, the communications should be sent to Washington as per the addresses given with the roster.[†] If subsequently, then to the same or to their home addresses. A member of the Association who personally knows his Congressman, may wish to follow up such letters, as opportunity presents, with personal interviews. For, as has been stated in these columns, these issues are not dead; and unless Congressional actions are watched, there is real danger that "health or medical service" enactments may slip through Congress, suddenly to launch projects upon the Nation, backed by large resources of federal funds, that would be almost certain promptly to establish an administrative bureaucracy impossible to overcome, once it is officially established. To be remembered, also, is that bureaucracies, once in being, usually set about immediately to enlarge their scope, functions, and powers.

* * *

More Concerning the Nature of the Amendments to H.R. 6635.—An insight into the real nature of Senator Wagner's amendments to H.R. 6635 may be gathered by a perusal of excerpts of a communication recently received, from which we quote as follows:

In Senator Wagner's Health Bill, S. 1620, it is proposed that the Social Security Board be authorized to cooperate with the several states in establishing state medical services. Such authority carries with it authority on the part of the Board to determine whether any proposed state medical service is or is not satisfactory. If the Social Security Board determines that it is not satisfactory, then the state is not to receive Federal aid. If Federal aid is granted, and if, at any time, the Social Security Board determines that the operations of the state service are not in accordance with the agreed plan, Federal aid may be withdrawn. Obviously, under such legislation the Social Security Board might easily impose on the several states any form of state medical service that it favored, under penalty of denial of Federal financial aid if the state set up a service of which the Board did not approve.

[†] For roster and Washington address, see page 116.

Under the national medical service proposed by Senator Wagner's amendment, the Board would be in supreme control throughout the states. The states would have no voice in the management of the proposed service. Neither would they be called on to pay any part of the cost. An examination of Section 202 (d), proposed as an amendment by Senator Wagner, gives some idea of the extent of the service proposed. The amount to be expended for the maintenance of such services, as stated in the amendment itself, is vague, and whether it would, even under the most favorable conditions, cover the cost of an effective service, no one can tell. If it does not, Congress might be called on to authorize larger expenditures, or the medical corps throughout the country might be called on to render all necessary services for whatever amount might be available.

Senator Wagner's proposed amendment to H. R. 6635 would set up, if enacted, a national medical service for the benefit of a limited group of employees of private industry throughout the entire United States. Excluded from the hypothetical benefits of that service would be farmers and farm labor, domestic service, professional men and women, and a multitude of persons engaged in commerce, the arts, and trades on their own account. And yet the expenses of the service are apparently to be paid out of the general revenues of the country, to which every inhabitant contributes, either directly as a taxpayer or indirectly as a consumer. It requires no depth of insight to see that a revolutionary project of this kind requires more study and consideration than it can receive as a newly proposed amendment to a lengthy bill of which it is not an essential feature within the few days that now remain before the adjournment of Congress.

THE WAGNER NATIONAL MEDICAL SERVICE AMENDMENT TO H. R. 6635 SHOULD BE OPPOSED.

* * *

The Time to Act Is Now.—Is it, therefore, expressing too optimistic a note to state the hope that many, many members of the California Medical Association will take the time to do their bit in this matter, by writing to Senators Johnson and Downey, and to their respective Congressmen? *Why not pen the letters before the intention is forgotten?*

THE PROFESSIONS: ARE ALL TO BOW TO GOVERNMENTAL PATERNALISM?

Washington Health Conference and Its Aftermath.—Much water has gone over the dam since the July, 1938, National Health Conference met in Washington, D. C., to receive the report of President Roosevelt's Interdepartmental Committee, and the recommendations of the Committee's technical experts. The almost prearranged program of that gathering was followed by the indictments against certain officers of the American Medical Association and the Medical Society of the District of Columbia, the Government's spokesman being Assistant United States Attorney General Thurman Arnold, who promulgated his intentions with ceremonious releases to the great press associations; so that soon, from Maine to California, and from Florida to Washington, the seeds of distrust were widely sown against the entire medical profession of the United States.

This propaganda, for supposedly better care of the sick, carried on through governmental and other agencies, has well served the aims of non-medical proponents of compulsory health laws, who seem, in their own thought-confusions, by and large to be unable to understand that sickness, an end result very often due to poverty

and associated public welfare deficiencies, will not be materially lessened by doing away with present day methods of medical practice, so long as the causative factors of disease, themselves, actively remain; a fact impressively serious since it may be said that it is an almost hopeless task to try to convince most of these compulsory health system exponents of the errors in their thinking. With many of them the determination that the system of medical practice shall be changed, to harmonize with their personal views, has become almost an obsession, factual data no longer being regarded as of worth, while the experience of almost one hundred thousand practicing physicians is set aside as so much testimony of merely prejudiced witnesses!

* * *

Other Professions Are Now Involved.—When the publicity against the medical profession was first launched, it appeared for a time that, of the various professions, medicine alone had been singled out for attack. However, as months flitted by, members of the profession of architects have seen much of the work in their fields go into governmental architectural offices. And, during the week of July 10, when the American Bar Association was in session at San Francisco, came forth another blast against one of the learned professions, the bureaucratic mouthpiece this time being United States Solicitor-General Robert H. Jackson who, in his preachments to legal colleagues on their obligations to fellow laymen, of the lower income groups, practically told his audience of attorneys, that, if they themselves would not take steps to provide more "adequate legal care," the Government itself might step in and furnish that service for the masses! Whatever the Honorable gentleman had in mind, the following, among other statements by the Solicitor-General, would certainly permit such implication:

The Government is already, through relief rolls and WPA projects, providing support for a very substantial number of lawyers. At the same time it sees a large number of citizens who help pay taxes deprived of legal services because they cannot pay the provisional scale of prices.

I have grave doubts that society will continue to support idle lawyers and at the same time go without their service once it wakes up to what it is doing.

Our bar cannot claim to be discharging its full duty to society by rendering service that is out of reach of an increasing proportion of our people. . . .

* * *

Learned Professions Have Common Interests.—The modern day practice of medicine includes not only the medical profession itself, but its intimate relations with the professions of dentistry, pharmacy and nursing. An accessory service, too, that would be involved in governmental activities is the profession of veterinary medicine. The professions of law and architecture have already been mentioned; and from what has been said, it must be agreed that these will always have common interests, so soon as revolutionary attempts, such as have been indicated, are made to imperil proper development along practical evolutionary lines. That being so, self-preservation and loyalty to the

common ideals and proven methods of these professions may well lead their disciples to ask themselves why they should not unite in organizations through which their joint and several interests may be safeguarded to better advantage? In industrial activities, this lesson of joint effort was long ago learned by both labor and the capitalist representatives of industry; and to them no objection is or can be taken, when given legitimate expression in legislative halls, factories, and workshops, or with those active in agricultural pursuits.

* * *

"Oregon State Federation of Professional Societies."—In Oregon, the "Oregon State Federation of Professional Societies" with representatives of the professions mentioned, and, in addition, teachers, certified public accountants, and physiotherapists, has existed for several years, and has proven itself an active and efficient body. In our State, the Public Health League of California functions in analogous manner. The opening paragraph in the 1933 Legislative folder of the Oregon Federation is of live interest explaining, as it does, some of the purposes of the organization:

GENERAL STATEMENT

The Vital Character of High-Type Professional Service:

The professional men and women of the State of Oregon comprise over twelve thousand trained persons whose services are essential to the health, safety, and progress of our people. The physician, dentist, pharmacist, and nurse guard our health; the veterinarian protects the health of our domestic animals, and insures the purity of our milk supply; the teacher is responsible for the development of the mind and character of our children; the engineer and architect are responsible for the safety and beauty of our homes and buildings; the certified public accountant protects the integrity and financial soundness of our business affairs; and other professional men and women render equally vital services.

Professional Standards:

In order to insure that the quality of service is maintained in the interests of the public they serve, the professions of the state, through their own efforts, have established proper legal standards of character and education. These standards are continually under attack by those who are unable to meet the necessary requirements and seek to lower them to their own standard of preparation, irrespective of the public interest. In order to successfully resist these attacks the various professional societies have affiliated and propose to work as a unit in supporting candidates for public office who are honest and sympathetic to the enactment of sound professional legislation and the active enforcement of professional laws.

Representation of Professions on Administrative Boards:

A further object of the Federation is to secure the recognition of the professions in the administration of all laws dealing with matters in which the technical knowledge of the various professions is of particular value. . . .

* * *

How County Medical Societies May Do Their Part.—The foregoing is here presented for its suggestive value, and it is to be hoped that what has been said in the meritorious preambles of the Oregonians and the California Public Health League, will lead every component county medical society of the California Medical Association to give over one or more of their fall or winter meetings to joint sessions with other professional groups as are mentioned above. At such meetings,

problems of common interest can be very profitably discussed. In some county medical societies of the State, as a matter of fact, this has been the standard custom for some years, and there is abundant testimony that much good has resulted therefrom. If your own organization has not done so, why not urge the officers and program committee to consider the possibility of similar meetings?

POSTGRADUATE CONFERENCES DURING FALL AND WINTER MONTHS

Attention of County Society Postgraduate Committees Requested.—Most of the County Societies have appointed Postgraduate Committees upon which falls the responsibility of making surveys of local postgraduate needs and facilities, and of supervising the arrangements for guest and local lecturers and demonstrators. Where local postgraduate committees do not exist, the county society officers may act as the committee. Such committee members may wish to utilize the opportunities existing, during the vacation months, to develop plans for clinical conferences to be held in the coming fall or winter, with special reference to probable dates and places of the meetings, and geographical territory to be included in the conference effort, and to select major topics seemingly most desirable for presentation, as well as the guest speakers whose presence is desired. Tentative decision on whether a one or two-day clinical conference would be the more desirable, with best days of the week or month for the gatherings, as well as estimates of expenses in necessary publicity and transportation costs, are other items of importance to be debated.

* * *

State Association Committee on Postgraduate Activities.—The Committee on Postgraduate Activities of the California Medical Association, acting through the Central Office in San Francisco, will welcome early communications from all who are interested. A roster of members who have signified their willingness to participate in the proposed clinical conferences is available, and names of guest speakers will be gladly sent for consideration.

Of importance, also, are such matters as the transportation and hotel expense of guest speakers. Speaker colleagues, who give time and effort in these activities, have already, by so doing, indicated their willingness to bear a generous part in the postgraduate work; but they should not be called on, in addition, to donate their traveling and hotel expenses. It is only right that the audience participants should bear their proportion of the conference costs, especially since this item can usually be covered through a modest registration fee, designed to defray expense of sending out notices, engaging meeting halls, and providing for transportation and hotel service. The State Association Committee on Postgraduate Activities is permitted to aid financially in only a limited extent. Conference Committees are reminded that travel expenses

are in proportion to distances covered, on which account it may be desirable to consider guest speakers from centers not too far away.

As before stated, correspondence is invited and should be addressed to the Association Secretary, who, through by-law provision, is also secretary of the California Medical Association Committee on Postgraduate Activities.

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH AND ITS DEFICIENCIES (?): AS INTERPRETED BY PROFESSOR PENROSE

Assembly Bill 2107.—The story of Assembly Bill 2107, introduced at Sacramento on January 25, 1939, and designed to legislate into being a new set-up for the State Board of Health, was outlined in the opening editorial of the July issue of CALIFORNIA AND WESTERN MEDICINE.*

* * *

California Medical Economic Survey.—The edition of the "California Medical Economic Survey," brought off the press in 1937, and a copy of which was then sent to each member of the California Medical Association, contained only the factual data of the survey, as embodied in 143 tables, 57 charts and 14 pages of form blanks, with the addition of a limited amount of informative text.

* * *

A Later Volume.—More recently and during the current year, another volume dealing with the survey has been issued, in which original and revised text appear, the financial sponsorship for its production being presumably indicated in a preface with the following words:

The California Osteopathic Association, largely through the loyal efforts of its legislative director, Dr. Glenn P. Caylor, has been responsible for keeping the study alive by means of last-minute emergency financial appropriations, and by this aid, extended at a time when it was so badly needed, publication of the complete and uncensored findings has actually been effected. The Russell Sage Foundation of New York has also been very helpful in this emergency.

Part IV of the volume is entitled, "The Organization of Medical Services," with chapters: "The Public Health Situation in California," on page 283; "Nature and Extent of Public Health Activities," on page 306; "Health Insurance," on pages 353-405. Concerning the authorship of this portion of the book, in which considerable revision from the original text of 1937 has been made, the preface states:

The authors [Dodd and Penrose] have divided the work between themselves, Professor Dodd being responsible for the final manuscript of Parts I, II, III, and V, and Professor Penrose of Part IV. . . .

* In the comments in the July issue, reference was made to the "Bureau of Public Administration of the University of California," with which Professors May and Penrose are affiliated. We had been misinformed in regard to the above. Professor Penrose has no connection with the Bureau of Public Health Administration, although he did speak on Assembly Bill 2107, in the Committee hearing at Sacramento. Professor May is Director of the Bureau of Public Health Administration and spoke to lay audiences on health insurance, but did not appear in connection with the State Board of Public Health Bill (A. B. 2107). We express regret at our error in statement.—Editor.

Purpose of the Present Comments.—In our present comments, in one sense, supplementary to the discussion of A.B. 2107, on pages 1-4 in last month's issue of CALIFORNIA AND WESTERN MEDICINE, we desire to discuss somewhat only the fourteen "conclusions" given on page 303, at the end of the chapter, "The Public Health Situation in California." Since the writer was for some years a member of the State Board of Health, and is, therefore, somewhat familiar with its history and record of achievement, it may be in order briefly to call the attention of members of the medical profession to astonishing statements which Professor E. F. Penrose has made in his so-called "Conclusions." These fourteen summings up by Professor Penrose and our comment follow:

Conclusion 1.—*In 1870 California, along with Massachusetts, occupied a position of leadership in public health organization in the United States; but as regards state activities in public health, it has for a long time lost all claim to leadership.**

Comment.—The public health record of California does not indicate any loss in leadership. In spite of handicaps established by the presence of large groups of unassimilable foreign-born, including a large Mexican population, the migration to California of hosts of health-seekers and agricultural laborers from other states, the necessary use of surface streams, largely, for public water supplies, the State's proximity to Oriental countries, the presence of inordinate numbers of health cultists, and other detrimental factors not encountered in other states, the public health record of California is far better than that of the majority of the states. In fact, it compares favorably with that of states that expend far larger sums of money for public health services and which do not encounter the obstacles found in California.

Conclusion 2.—*This loss of leadership seems to have been due partly to the retention of an antiquated form of organization of the State Department of Public Health, under which activities are controlled by a board of seven persons, the majority of whom have had no previous experience of public health activities, and whose experience and interests are primarily centered on private medical practice.*

Comment.—The contention that there is a loss of leadership in California, due to the form of organization of the State Department of Public Health, would also apply to at least twenty-nine other states which have similar organizations.

These include Indiana, Minnesota, New Jersey, Wisconsin, and Maryland, all of which are acknowledged as having outstanding state public health organizations which achieve excellent records in public health service.

Conclusion 3.—*The office of State Director of Public Health in California in no way corresponds to the office of health commissioner in the states in which public health organization has made the best development. Administrative and executive functions are vested in the whole Board*

* The California State Board of Health came into existence in 1870, largely through the efforts of the medical profession, under the inspiring leadership of Dr. Thomas M. Logan, a South Carolinian who settled in Sacramento in August of 1850. In that same year, Doctor Logan, with Dr. E. S. Cooper of San Francisco, issued the call for the organization of a State Medical Society, and in 1870 he was instrumental in its reorganization. Doctor Logan was then president of the Medical Society of the State of California in 1870, and at the same time he was also secretary of the newly organized California State Board of Health. It is evident, therefore, that the initial public health efforts in California were, from the beginning, interwoven with those of organized and scientific medicine.

of seven members and not in the Director alone, with the result that the Director is not in a position to direct. The law fails to specify that direct qualifications in public health administration shall be required of the members of the Board or even the Director. An able and energetic Director would be hampered by the necessity of carrying with him a board likely to be reluctant to permit any supposed encroachment of public health activities on what is regarded by medical practitioners as a field reserved to private practice.

Comment.—In California the State Board of Public Health was organized entirely upon the initiative of the medical profession. For almost three-quarters of a century the responsibility for the maintenance of public health in California has been placed upon a Board composed of doctors of medicine. The executive officer has always been a member of the Board, and the fact that serious emergencies, such as outbreaks of bubonic plague,* epidemic poliomyelitis and many other acute infectious diseases, have been terminated through control exercised by the Board, indicates that this form of organization is efficient and achieves results of lasting benefit to the public health of the State.

Conclusion 4.—*The maximum insecurity of tenure is attached to the office of State Director of Public Health, who can be dismissed "at the pleasure of the Governor." In all states with well organized state health departments, the commissioner of health is guaranteed at least four years in office. The present law in California leaves an opening for grave abuses.*

Comment.—The fact that the public health authority rests in the California State Board makes it important that the executive officer be an individual who may deliberate with other members and who may always represent the opinion of the Board. The tenure of office is important, but willingness to take part in deliberations, to abide by the majority opinion, and to successfully enforce the rules, regulations, and orders of the Board are of first importance, and lead to long tenure of office, as proved by experience.

Conclusion 5.—*In the states recognized by public health experts as having the best organized state departments of health, all executive and administrative powers are placed in the hands of a state commissioner of health, and a public health council exists, the functions of which are advisory and not concerned with executive matters. State health commissioners and members of advisory councils are required to have had qualifications and experience in public health administration and sanitary science, nor are advisory councils composed solely of private medical practitioners. This form of organization, found in New York, Massachusetts, Pennsylvania, Michigan, and Ohio, is demonstrably superior to the old-fashioned form retained in California.*

Comment.—The California State Board of Public Health has never failed to rely upon the opinions of expert consultants in all fields of public health. Its consultants are of outstanding ability.

Members of any higher judicial court are not required to have special training in corporation, crime, or other legal specialties: their general training and mature judgment enable them to provide a judicial service and to render opinions in accordance with American principles of justice to all.

Similarly, members of the California State Board of Public Health are not required to have had special training in any single branch of medicine. Their training and experience as practicing physicians enable them to formulate policies that are successful in accomplishing recognized achievements in the prevention and control of disease.

* An illuminating example of the independence and courage of the medical profession of California, in opposition to the political forces of the State, may be found in the articles by George H. Evans on "Plague Epidemics in California" in the following issues of CALIFORNIA AND WESTERN MEDICINE: November, 1938, on page 383; December, 1938, on page 458; January, 1939, on page 24.

Conclusion 6.—The tenure of local public health officers in California, both in counties and incorporated cities and towns, is, from the standpoint of State laws, deplorably insecure. The State Director of Public Health can do nothing to prevent the dismissal of a well qualified local health officer for political reasons.

Comment.—Since the days of the New England town meeting, the policy of establishing local government within local communities has constituted the very essence of civil government in the United States.

Laws for state control over undesirable health conditions in local communities for use in emergencies are sufficient and insure the maintenance of the public's health.

The suggestion that a state health organization should exercise privileges of patronage in local communities is un-American and indicates a lack of sympathy with our existing form of government.* It would be as logical for the proponents of this suggestion to propose that the Federal Government take over the control of the government of the states.

Conclusion 7.—The qualifications required of local health officers under existing laws are wholly inadequate. There is no legal assurance whatever that persons appointed as local health officers will necessarily possess sufficient experience and qualifications, and the State Director of Public Health has no power to prevent the appointment of inadequately qualified persons.

Comment.—This conclusion is unfair to the twenty-five counties that have organized, full-time public health units, with qualified health officers serving such units. In those counties where sparse populations and lack of funds make the organization of full-time health districts impossible, the State has always provided public health services, pending such time as adequate control measures are available in these communities.

Conclusion 8.—A considerable proportion of the people of California are living in areas in which there are no full-time public health officers and wholly inadequate health protection is given.

Comment.—It is a fact that almost 95 per cent of the population of California enjoy the benefits that come through residence in communities where full-time public health service is provided. The conclusion is, therefore, untrue.

The remaining 15 per cent receive nominal public health service from the State, and, in many instances, special services are provided as indicated.

Conclusion 9.—Some of these areas are financially in a position to maintain full-time public health service, but public inertia must be overcome by persuasion or pressure from within and without before changes can be made.

Comment.—The State provides every possible facility for encouraging the formation of full-time public health units. Within the past two years, no less than seven such units have been organized through the efforts of the State Board of Public Health. The statement is unfair in its contention that no attempt is made to encourage the development of efficient local health service. A special bureau of county health work, for example, is active in providing premarital services.

Conclusion 10.—Other counties are likely to remain for an indefinite period financially unable to maintain full-time public health services. Hence it would be impracticable to pass legislation compelling all counties to establish full-time public health services without making other adjustments.

Comment.—The State provides at least nominal public health services in those communities that are financially unable to maintain full-time public health service. Far better results can be achieved through education in public

health than through the attempted exercise of compulsion, where such enforcement is impossible.

Conclusion 11.—Some counties and incorporated towns form suitable units for the maintenance of public health departments, but others do not. It is desirable that in the latter local health districts be formed which in some cases will cross county lines.

Comment.—For almost two decades there have been laws upon the statutes of California that would enable a local health district to cross county lines. Until recently, however, there has been only one local health district organized in California, and that has confined its limits to a single county. No California county as yet has consented to relinquish its rights as a government unit. Until such time as the whole structure of government may be changed, this attitude would, no doubt, prevail.

Conclusion 12.—The Local Health Districts Act of 1917 makes possible the formation of local health districts which may, if necessary, cross county lines. Up to now only one local health district, that of San Joaquin County, has been formed. This district does not cross county lines, but combines county and incorporated city territory. Competent public health experts agree that San Joaquin County has one of the best county health departments in the United States. The Local Health Districts Act, however, is a permissive act, and local political difficulties would have to be overcome before advantage could be taken in many districts of the opportunities which it affords.

Comment.—The organization of the San Joaquin Health District was effected through the united efforts of the local medical profession, service clubs, commercial organizations and influential residents of that county. The plan of organization is distinctive in that funds for support of the district are derived through a tax levy rather than appropriations made by the board of supervisors. Nevertheless, the district submits an annual budget for approval of the supervisors, and the funds are spent and the tax levied only in conformance with the actual needs of the district. Any county in the State may take advantage of the provisions of the Local Health Districts Act. Many of the full-time county health units in the State now have organizations that are identical with that of the San Joaquin Health District, with the exception of the fact that funds are derived through appropriations rather than tax levies. Since many of such units are subsidized through the provision of Federal and other funds, the application of the Local Health Districts Act is less advantageous than their present method of financing.

Conclusion 13.—Six State health districts were formed in California in 1917 and a number of State district health officers were appointed after a strict civil service examination open to the candidates throughout the country. The officers appointed rendered valuable services, but, due in part to the War and in part to a less progressive attitude on the part of later State Boards of Public Health, the scheme gradually collapsed, without the adoption of satisfactory alternative methods of achieving the objectives which the State health districts were designed to achieve.

Comment.—The State health district plan established in 1917 was dissolved, not through any action or attitude on the part of the State Board of Public Health, but rather through the action of the Legislature, which refused to appropriate funds for the continuation of such districts. In many states where similar districts have been formed, the plan has been abandoned as unfeasible. This is notably true in Illinois and Ohio.

Conclusion 14.—The personnel and the resources of the State Department of Public Health are wholly inadequate to render needed assistance to local health departments, and to stimulate local interest in the formation of full-time departments of public health. Alternative remedies may be found in the revival of State health districts or the strengthening of the State Department of Public Health by larger appropriations and additional civil service personnel. But

* Without desire to introduce personalities, it may be of interest to note that Professor E. F. Penrose secured his American citizenship papers on February 19, 1937.

the effectiveness of either of these remedies depends on the concentration of all executive and administrative powers in the hands of a competent and vigorous State Director of Public Health.

Comment.—The California State Board of Public Health maintains a Bureau of County Health Work that devotes its whole efforts to the organization of full-time county health units, and with marked success. The plan of State district health organization has been demonstrated as impractical, not only in California, but in other states as well. Until such time as the county is abolished as a local unit of government, public health legislation must conform to existing legal standards. Whenever the counties may consent to consolidation into units, composed of groups of counties, public health laws will naturally conform to the general legal structure that consolidation would bring.

It is believed that the present personnel and present appropriations allotted to the State Board of Public Health enable full service to the public and without placing undue burdens upon taxpayers. The present director of the State Department of Public Health has served efficiently under five administrations of State government, and, since 1920, when he assumed office, most outstanding records in communicable disease control and promotion of public health have been achieved. To question the competence and efficiency of the California State Board of Public Health and the Director of the Department indicates gross ignorance of the public health record of California.

* * *

Final Comment.—With due deference to whatever profound knowledge the authors of the book here discussed may possess along academic lines, it is our belief that more study might have advantageously been given by them, before venturing to such interpretations, with the positive commitments included in the fourteen "conclusions" here commented upon.

A. M. A. WINS AT WASHINGTON, D. C.

Press Clippings Tell the Story.—Press dispatches dated July 26, Washington, D. C., at a time when this August issue of CALIFORNIA AND WESTERN MEDICINE is in press, bring the happy tidings that efforts of the United States Department of Justice, under the leadership of Assistant Attorney General Thurman Arnold, to invoke the Sherman anti-trust law of the year 1891 against the American Medical Association have come to naught, through a ruling handed down by Justice James M. Proctor of the District of Columbia Federal Court.*

For further details, see under "Press Clippings," on page 130 of this issue.

California Medical Association members who failed to note the press dispatches referred to, should take the time to read this important news.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 116.

* On July 31, the U. S. Department of Justice asked the United States Court of Appeals to overrule the lower court decision.

EDITORIAL COMMENT†

WEATHER AND MEDICINE

The supposition that environmental factors influence the living organism is not new: no less a person than Hippocrates discussed it. Recognition of these influences has increased with the emergence of medicine from the early chaos of speculation and ignorance. The interwoven research of physicists, meteorologists, mathematicians and medical men has laid the foundation of a new branch of medical science: "Meteorobiology." The mysticism of the ancients has been eliminated, while speculation has been placed upon such a mathematical basis that it may almost be said to pertain to the realm of proved fact.

Introduced by the Norwegian school of meteorologists, a common interpretation for meteorological phenomena obviates the earlier contradictory results of various researchers. Previously, each author based his observations upon some different, uncorrelated factor such as temperature, barometric pressure or humidity; now, Bjerknes' "Front"-theory has been generally adopted. In this theory each factor is demonstrated as part of a whole syndrome, and it is this syndrome of events, occurring in forward or reverse order, which influences the living organism. Popularly, this is called "change of weather."

The most important cause of weather change is the passage of the so-called "discontinuity surface" which separates air masses of opposite physical characteristics traveling in opposite directions. The two main types of air masses are the polar, originating over the polar and subpolar regions, and the tropical, originating over the subtropical zone. These intermix to no appreciable degree, so the discontinuity surfaces are generally zones of rapid transition termed "fronts." The cold front lies between the tropical current and the advancing polar air mass; it is marked by a sharp drop in temperature, decrease in humidity and a steady rise in barometric pressure. The warm front lies between the receding cold air and the tropical current: it is marked by rise in temperature and humidity and a falling barometric pressure.

Petersen¹ in this country and De Rudder² in Germany have demonstrated that passage of the above fronts exerts a very definite influence upon certain diseases (and symptoms) both as to onset and course. Proved statistically is the correlation between changing fronts and the following: Laryngeal croup, spasmodic asthma, eclampsia gravidarum, rheumatic pains, neuritic pains (tabes), lobar pneumonia, acute upper respiratory infections, hemoptysis, apoplexy, diphtheria, acute glaucoma. A highly probable correlation exists between weather

¹ Petersen, W. F.: *The Patient and the Weather*, Edwards Brothers, Ann Arbor, 1935-1938.

² De Rudder, B.: *Grundriss einer Meteorobiologie des Menschen*, Springer, Berlin, 1938.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

changes and angina pectoris, migraine, bronchial asthma, pertussis attacks, phlyctenula, herpes corneae, acetone vomiting, gallstone and kidney-stone colics, paroxysms in chronic malaria, appearance of new lepra lesions, onset of paralysis in poliomyelitis, onset of mental diseases, epileptic convulsions, scarlatina, certain skin diseases, death from coronary sclerosis. Maurer³ has shown that postoperative complications (thrombosis, embolism, infection) are related to front changes. Interesting results concerning the passage of fronts and their relation to the onset of labor have been published by Jacobs⁴ (Germany) and recently by Boedeker (A. M. A. meeting, 1939).

The exact mechanism of these effects is still insufficiently clear, but there is no doubt that the vegetative nervous system plays the rôle of receptor.

The practical conclusion derived therefrom is that, before undertaking major surgery (emergencies excepted) attention should be paid to the prevailing weather and the probable receptivity of the patient so that corresponding prophylactic measures be taken. Further, prophylaxis could well be instituted to obviate exacerbations in certain illnesses.

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AFFINITY OF LEAD FOR VITAMIN C

Clinical and laboratory evidence that there is an elective affinity between lead ions and ascorbic acid in the human body, is currently reported by Doctor Holmes¹ and his colleagues of Oberlin College. Such chemical affinity would not only suggest a new theory as to the toxic action of metallic lead, but would make plausible new methods of therapeutic attack. A possible clinical connection between lead and vitamin C was suggested to the Ohio biochemists by the similarity of the gum lesions in scurvy and severe lead poisoning. A group of thirty-four cases of industrial lead poisoning was, therefore, selected for study. Seventeen members of this group were given 100 milligrams ascorbic acid daily, but no other medication. There was a marked gain in subjective symptoms in all members of this group, a prompt improvement in blood picture, and decreased excretion of lead in the urine. In one typical case, for example, urinary lead, before beginning ascorbic acid administration, was 0.5 milligram per liter. Within two weeks, excretion fell to 0.1 mg. per liter, approximately that of normal urinary excretion. With the seventeen other members of this group the previous calcium gluconate treatment was continued, but was supplemented by 100 milligrams ascorbic acid daily. This group gained in health, but not so rapidly as the seventeen patients given vitamin C alone. Test-tube experiments led to the conclusion that ascorbic acid reacts with lead ions to form a poorly ionized and, therefore, relatively inert lead-ascorbic acid

conjugate. Chemical analyses suggest that this relatively inert lead-ascorbate is excreted in the bile. The obvious conclusion drawn by the Ohio biochemists is that "men exposed to lead hazard should be advised to include in their diet plenty of such rich sources of vitamin C, as tomatoes (fresh or canned), raw cabbage, oranges or grapefruit, raw turnips, green peppers, cantaloupe, etc"; or to take 50 milligrams of ascorbic acid daily in addition to their usual diet. Detailed publication of their clinical evidence is promised for the near future.

Box 51.

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Helpful Suggestions Given for Nursing in the Home.—

Raising a patient's bed to the height of a standard hospital bed, twenty-seven inches, greatly lessens the strain on whatever member of his family may be acting as nurse, Elizabeth W. Hard, R. N., Greensville, North Carolina, advises in *Hygeia, The Health Magazine*.

This is one of her suggestions for making convalescence from a long illness as comfortable as possible for both patient and family.

"The bed can be elevated with bricks or wooden blocks placed under the legs," Miss Hard says. This not only helps the nurse but generally it is a better height for looking out of windows and in summer it is cooler.

If the patient is out of bed during the day and has difficulty getting back in a high bed, use a firmly placed chair or a child's "self help step," the author suggests.

"Sometimes covering can be a great annoyance," she points out. "If it is too heavy it is uncomfortable and over a long period might cause toe drop. Aside from a regular or home made bed cradle to hold up the weight of the bed clothes, wire clothes hangers can be useful. The bed clothes can be draped over the foot of the bed, then fastened over the bars of the hangers with snap clothes pins and the hooks fastened to the foot of the bed. This keeps the weight off the feet and yet keeps the covering in place."

If the bedrooms are not pleasant, the author advises that the patient be placed in the dining room, living room or even the kitchen. Furniture can be shifted to make this possible.

"A new outlook is highly exciting after months of seeing the world from one side," Miss Hard observes. "An adjoining room, adjacent porch or even a convenient hallway affords great relief and change if the bed can be occasionally shifted or the patient moved.

"If this is not feasible give the patient new scenes in the room. Change the pictures; place a screen near the bed and pin on it prints or magazine covers. Have growing plants in the room, anything from rye grass to sweet potato vines. But don't have too many plants or too highly scented flowers.

"A paper bag fastened to the mattress with safety pins or to the bedside table with adhesive tape can be used for discarded cleansing tissue, empty envelopes or scraps of paper or cloth if the patient is cutting or sewing."

A table reaching across the bed, with a center panel to be used as a book rest, is a great convenience. "A wooden one can easily be made, with the advantage that a narrow ledge can be added which prevents toys from falling off or books from being pushed over the edge," says Miss Hard. "It can be pushed to the foot of the bed and be out of the way, yet easily available when not in use. If the patient is allowed to sit up to eat, it can be used at meal time."

³ Maurer, G.: 20th Heft d. Vortraege aus d. prakt. Chirurgie, Ferd. Enke, Stuttgart, 1938.

⁴ Jacobs, F.: Arch. Gynaek., 159:226, 1935.

¹ Holmes, Harry N., Amberg, Edward J., and Campbell, Kathryn: Science, 89:322, (April 7), 1939.

ORIGINAL ARTICLES

SULFANILAMIDE AND SULFAPYRIDIN IN
THE TREATMENT OF VARIOUS
INFECTIONS*

By CHESTER S. KEEFER, M. D.
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PART I

THE use of sulfanilamide and sulfapyridin in the treatment of a variety of infections has stimulated and excited tremendous interest within the past three years. Of these two drugs, sulfanilamide has had a much wider use than sulfapyridin, and we are just beginning to learn more about the value of sulfapyridin in the treatment of such infections as those due to the pneumococcus.

Today, I propose reviewing briefly our own experience with these two drugs; and since the time at my disposal is limited, I will summarize our results without presenting the details of cases. In order to synopsise the results of the use of sulfanilamide so far, I have made Table 1. This is, of

TABLE 1.—On Use of Sulfanilamide

Diseases in Which Sulfanilamide Has a Proved Value:

1. Streptococcic infections
2. Meningococcic infections
3. Gonococcic infections
4. Urinary tract infections due to *B. coli*, *B. influenzae*, *B. proteus*, *Staphylococcus aureus*
5. Pneumococcic meningitis
6. Experimental malaria

Diseases in Which Sulfanilamide Is of Suggestive Value:
(Experience too limited or results not conclusive)

1. Undulant fever
2. Pylephlebitis suppurativa
3. Trachoma
4. Lymphogranuloma inguinale
5. Chancroid
6. Actinomycosis
7. Typhoid fever and paratyphoid fever

Diseases in Which Sulfanilamide Is Ineffective:

1. Subacute bacterial endocarditis
2. Staphylococcic infections
3. Rheumatic fever
4. Influencing the rash of scarlet fever
5. Preventing a recrudescence of rheumatic fever following hemolytic streptococcic infection
6. Sterilizing local foci of hemolytic streptococcic infection

Diseases in Which Sulfanilamide Has Been Used Prophylactically:

1. Preventing hemolytic streptococcic infection in rheumatic subjects, and in pregnant women who are about to go into labor.

course, only tentative and cannot be taken to be final, since additional experience may necessitate a change in our views, especially with reference to certain diseases.

In assessing the value of any therapeutic agent in the treatment of infectious diseases, two general

methods can be used. It can be ascertained whether the fatality rate is decreased, or it can be determined whether the total duration of the disease is shortened, the natural history of the disease changed, or complications prevented. When the fatality rate is high or the disease is self-limited in duration, then the problem is much easier than when one is dealing with a disease in which the fatality rate is low and the disease is indeterminate in duration.

Of the diseases in which there seems to be little doubt about the beneficial effects of the drug, those due to the hemolytic streptococcus, the meningococcus, the gonococcus, and certain organisms causing urinary tract infections are most important and require comment.

STREPTOCOCCIC INFECTIONS

It now seems clear that sulfanilamide reduces the fatality rate in cases of hemolytic streptococcic bacteremia, in puerperal sepsis, and in meningitis.¹ It reduces the total duration of the disease process in cases of erysipelas and cellulitis, and it aids in the sterilization of empyemata due to the hemolytic streptococcus. In hemolytic streptococcic pneumonia its effect is uncertain, since there are too few cases on record to allow one to make a decision. The results in the treatment of tonsillitis and scarlet fever have been somewhat difficult to assess. The total duration of the disease does not seem to be shortened, and sulfanilamide does not affect the rash of scarlet fever. In some reports, the total number of complications in treated cases has been small, whereas in others this feature has not been so striking. When otitis media, due to the hemolytic streptococcus, is present, sulfanilamide apparently decreases the number of cases of acute mastoiditis requiring operation.

In general, the drug has been ineffective in subacute bacterial endocarditis, although there are isolated observations here and there throughout the country in which recoveries or, at least, remissions of long duration have been observed. It has also been found ineffective in preventing recrudescences of rheumatic fever following streptococcic infection, and it is of no value in the treatment of rheumatic fever.

In the prevention of sore throat in rheumatic subjects, several groups of investigators have given the drug in small daily doses for over a year, with encouraging results. It has also been recommended in the prevention of puerperal sepsis in pregnant women who are about to go into labor.

It would appear that sulfanilamide acts in these cases by (1) inhibiting the growth of the organism, (2) actually killing some strains in small numbers, and (3) prolonging life until an infection is localized, and finally destroyed, by the immune processes of the body. In order to accomplish this, it is necessary to have a high concentration (at least 7 to 10 milligrams per 100 cubic centimeters) of the drug in contact with the organisms and an active immune process.

MENINGOCOCCIC INFECTIONS

Following the demonstration that sulfanilamide prevented death from meningococcic infection in mice,² and in view of the fact that the drug inhibited

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Guest Speaker's paper, read before a joint meeting of the sections on General Medicine and General Surgery of the California Medical Association, at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

the growth of the organism *in vitro*, it has been used in a large number of cases of meningococcal meningitis in man. The results of this type of treatment have been most encouraging when used either alone or in combination with specific serum. In brief, it has been shown that the fatality rate can be reduced to between 10 and 15 per cent, the spinal fluid is often sterilized within twenty-four hours of its administration, and the total duration of the disease is shortened. Inasmuch as the drug diffuses rapidly into the cerebrospinal fluid when taken by mouth, it is unnecessary to give the drug intrathecally. It is necessary, however, to maintain the concentration of the drug in the spinal fluid in the neighborhood of 8 to 10 milligrams per cent. All samples of spinal fluid should be examined for (1) the presence of organisms, (2) the level of sulfanilamide, (3) the number of cells, and, when available, (4) the total sugar content. The drug should be given by mouth every four hours and, if necessary, by nasal catheter rather than by hypodermoclysis. If it is necessary to give it by hypodermoclysis, the drug should be given every four hours, 1 gram in 125 cubic centimeters of distilled water or salt solution. While it would be premature to say that this form of treatment is as effective as specific serum, the results so far reported indicate that this is the case. The best method to adopt for the present would seem to be the use of sulfanilamide alone at the beginning of the treatment and, if one fails to sterilize the spinal fluid within twenty-four hours, then it may be necessary to give specific serum. Lumbar punctures should be done every twelve hours until the fluid is sterile, and then every twenty-four hours until it is normal.

Cases of chronic meningococcemia will also respond in a satisfactory way to this drug.

GONOCOCCIC INFECTIONS

Numerous cases of gonococcal infections, including infections of the genital tract, the eyes, and the joints, have been treated with sulfanilamide with varying results. Our experience³ with the use of the drug *in vitro* showed that the gonococcus was inhibited in its growth when the concentration of the drug was 5 milligrams per 100 cubic centimeters or higher. In the case of many strains the organisms were actually killed in this concentration. From clinical experience with the drug, one can say that, as far as urethritis is concerned, the cases can be divided into three main categories: (1) Those in which the urethritis is cured within a period of seven days. This represents about 50 per cent of the cases. (2) Those in which the signs of acute urethritis subside promptly but the patients continue to carry organisms in the urethra. This is a most important group, since the patient may continue to be a source of infection and cannot be pronounced cured until all the organisms disappear from the genital tract as proved by culture. (3) A group of patients whose course seems to be unaffected by the drug. In some of these patients, the drug seems to be more effective later in the course of the disease than it does in the early stages of the infection.

In the cases of arthritis,⁴ it can be shown that infected synovial fluid can be sterilized within several days after the drug is administered, provided the concentration of sulfanilamide in the synovial fluid is 5 or more milligrams per 100 cubic centimeters. It is in this group of cases that the most striking clinical results are obtained. Less striking results may be seen in the patients with noninfected synovial fluid, but even in this group the total duration of the disease is shortened. Recurrences of the arthritis, fever, and urethritis may follow the withdrawal of the drug, so that it is well to continue its use until all signs of infection have disappeared. There is some evidence that the body defense mechanism is of importance in ridding the body of organisms.

Very striking results have been obtained in the treatment of gonococcal ophthalmia; in the few cases that I have seen the results have been most impressive. It has been found by Michels⁵ and others that there is a rapid decrease in the edema and discharge, with a sterilization of the exudate and a great reduction of the number of days of hospitalization. In the series reported by Michels, the reduction of hospitalization from 28.5 days in a control series to 5.8 days in a treated series was very striking.

In short, it can be said that sulfanilamide is one of the most effective drugs available at present for the treatment of gonococcal infections and, while other methods of treatment are necessary in many cases, it should be given an adequate trial in all.

URINARY TRACT INFECTIONS

There is general agreement that urinary tract infections due to *B. coli*, *B. proteus*, *Staphylococcus aureus*, and *B. influenzae* are favorably influenced by sulfanilamide. Bliss and Long⁶ have reported failure in infections due to Group D streptococci, and Helmholz⁷ has not observed favorable results in those with *Streptococcus faecalis*. There is no doubt that sulfanilamide exerts a measurable bacteriostatic effect in urine and in clinical cases it has been found effective even when the urine is alkaline. As one studies these infections of the urinary tract in adults, it becomes evident that the drug inhibits the growth of organisms so that, in some cases, there is complete sterilization of the urine. In others, the organisms disappear during the administration of the drug, but reappear when it is discontinued. We have found it of value in pyelonephritis of pregnancy, in chronic bacilluria and cystitis, and in individuals with pyelonephritis without obstruction in the urinary tract. The most conspicuous results have been obtained with *B. coli* infections, and the best results are obtained when the urine contains at least 100 milligrams of free sulfanilamide per 100 cubic centimeters. This can usually be accomplished by giving 2 or 3 grams a day and restricting the output of urine to 1,500 cubic centimeters a day.

PNEUMOCOCCIC MENINGITIS

This highly fatal disease can be favorably influenced by sulfanilamide, especially when sulfanilamide treatment is combined with (1) the use of

specific serum given intravenously, (2) the use of repeated spinal drainage, and (3) the injection of either small amounts of specific serum or autogenous serum into the subarachnoid space.

The pneumococcus is killed by intracellular digestion. This is facilitated and accelerated in the presence of specific antiserum and complement (normal human serum). Sulfanilamide does not kill pneumococci in large numbers, but it inhibits their rate of reproduction. The rationale for the combined use of sulfanilamide, specific serum, and autogenous serum is as follows: The sulfanilamide inhibits the growth of the organisms, the specific serum provides antibody, and the autogenous serum provides antibody and complement. The reason it is necessary to inject specific serum and complement into the subarachnoid space is that antibody and complement diffuse into the subarachnoid space very slowly.

A study of the fatal cases of pneumococcic meningitis which have been treated with sulfanilamide shows that bacteremia, the presence of endocarditis or brain abscess, or injury to the brain, such as follows a fracture to the skull, all contribute to death.

The plan of treatment, as developed by Finland, Brown, and Rauh,⁸ would appear to be the best for the present. It is the one that we have followed and may be summarized in this manner:

Sulfanilamide by mouth so that the concentration in the blood and spinal fluid is at least 10 milligrams per 100 cubic centimeters or more.

Repeated spinal drainage at least every twelve hours. All of the fluid should be drained off. Fluids should be administered freely in order to prevent dehydration and to insure a free flow of spinal fluid.

Specific antipneumococcic serum should be given intravenously to all patients with bacteremia, or to all patients who fail to show antibodies in the blood by means of slide agglutination with the same type of pneumococcus causing the meningitis.

Small amounts of antipneumococcic horse or rabbit serum (2 to 5 cubic centimeters), together with 15 to 20 cubic centimeters of fresh human serum, should be injected into the subarachnoid space daily until the spinal fluid is sterile.

Blood transfusions should be given repeatedly, especially when signs of anemia develop.

When specific antiserum is not available or the type of pneumococcus is not known, the patient's own blood serum, without added antibody, may be used, provided there is no bacteremia.

All patients with meningitis, regardless of its cause, should be started on sulfanilamide or sulfapyridin as soon as the diagnosis is made. The etiological diagnosis should then be established as quickly as possible.

It is important to use only small amounts of foreign protein intraspinally, since large amounts may be followed by a response with a thick purulent exudate.

PNEUMOCOCCIC PNEUMONIA

On the whole, the use of sulfanilamide in the treatment of pneumococcic pneumonia has not been very impressive. Finland and Brown,⁹ of our clinic at the Boston City Hospital, have reported results in the treatment of Type III pneumonia with sulfanilamide or specific serum, or with a combination of these two agents. When reviewed from the point of

view of the fatality rates, the results of treatment were not very striking. There were isolated instances in which this form of treatment was followed by definite improvement, and the bacteriological and immunological studies indicated that sulfanilamide and serum can alter the course of Type III pneumonia. These observations receive support from the experiments of Enders and his associates,¹⁰ who have been able to show that sulfanilamide influences in a favorable way the Type III pneumococcic skin infections in rabbits. It was found that recovery occurred when the animal survived long enough to develop specific antibodies. A recent study of the action of sulfanilamide in pneumonia due to different types has been recorded by Price and Myers,¹¹ and suggests that the drug may have a favorable effect in some cases due to other types besides Type III. They report a fatality rate of 15.7 per cent for the sulfanilamide-treated cases. When the results with sulfanilamide were compared with the results of specific serum-treated cases of Types I, II, V, VII, and VIII pneumonia, the death rate in the sulfanilamide-treated cases was 10.5 per cent, and in the serum-treated cases was 27.5 per cent. This is what might be anticipated in this small group, since the incidence of bacteremia in the serum-treated group was 30 per cent, whereas in the sulfanilamide-treated group it was only 16 per cent.

From *in vitro* experimental studies of the action of sulfanilamide on the pneumococcus with and without the addition of specific serum, it would appear that the combination of both agents would be better than either one alone. This is probably the method that should be used in the treatment of pneumonia if sulfanilamide is used.

SULFAPYRIDIN IN PNEUMOCOCCIC INFECTIONS

In view of the slight effect of sulfanilamide in pneumococcic infections when used alone, one of the derivatives of sulfanilamide (sulfapyridin) has been introduced for the treatment of pneumococcic pneumonia¹¹ as well as other pneumococcic infections.¹² This drug has received wide publicity in the lay press, so that it is well to review some of the salient points concerning its use in the treatment of pneumonia. At the outset, it can be said with some degree of confidence that the numbers of cases of pneumonia that have been treated so far are too few to afford a safe basis for any final conclusions as to the effectiveness of this drug under different conditions, or the extent of its toxic effects. The available evidence at present clearly suggests that it has a definite place in the treatment of pneumonia. Any statements that are made concerning its value, however, are purely tentative, since all of the factors influencing the fatality rate, the duration and course of the disease following sulfapyridin have not been adequately appraised.

From studies of the action of sulfapyridin *in vitro*, it has been ascertained that the drug is bacteriostatic as well as bactericidal for large numbers of pneumococci of Types I, II, III, V, VII, and VIII. To accomplish maximum results, it is desirable to use a concentration of at least 5 to 7 milligrams per 100 cubic centimeters. There are

slight differences with various specific types, depending upon the methods employed for study, the concentration of the drug, and the media that is used.

In mice infected with pneumococci at the same time that treatment is started, death is often delayed in Type III infections until the treatment is discontinued; then the animal very often dies. With Type I and Type II infections, treatment with the drug prevents death of significant numbers of animals when inocula of 10,000 to 100,000 pneumococci are used. These studies indicate that the drug has both a bacteriostatic and a bactericidal reaction on the common types of pneumococcal infections.

Before discussing the use of sulfapyridin in the treatment of pneumonia,* one may well review some of the factors concerned in the prognosis of this disease, and also the results which can be obtained with the use of specific serum.

(To be continued)

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* For collateral comments on the use of sulfapyridin in the treatment of pneumonia, see in this issue, on page 143, under the caption, "Sulfanilamide and Sulfapyridin in the Treatment of Various Infections."

CONGENITAL MALFORMATIONS OF THE RECTUM AND ANUS: THEIR SURGICAL TREATMENT*

By LOREN R. CHANDLER, M. D.
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CONGENITAL anomalies of the anus and rectum, although not common, are of sufficient importance to justify consideration and critical review at frequent intervals. They are said to occur about once in every five thousand and six thousand newly born infants, but accurate statistics are not available. During the past four years, six such cases have been seen on the Stanford surgical service, five of them having been referred from other parts of the State.

EMBRYOLOGY

The embryological development pertinent to these anomalies occurs between the fifth and ninth weeks. Excellent descriptions of the normal development have been given by Arey,¹ Hunter,² Johnson,³ Keith,⁴ Koff,⁵ Lewis,¹⁰ Pohlman,¹² Stieda,¹³ Wood-Jones¹⁵ and others, but the process might be summarized as follows: In a 5-millimeter embryo the cloaca exists as a terminal sac common to the intestinal tract and the allantois. It is a rather narrow cavity compressed from side to side, and is sharply angulated ventrally. Near this ventral angle the cloaca comes in contact and fuses with the ectoderm of the body surface to form the cloacal membrane. Soon a longitudinal division of the cloaca is accomplished by the down-growth of a single, wedge-shaped mesodermic fold, called the urorectal septum, separating it into a dorsal or rectal portion and a ventral urogenital sinus. If this connective tissue septum is not complete there remains a narrow cloacal duct. Normally, however, all communication between the urogenital sinus and the intestine is closed off by the end of the seventh week. The urorectal septum also divides the cloacal membrane into two segments, a urogenital membrane and an anal membrane. Later both membranes are broken through independently, forming a urogenital and an anal opening. When the edges of the ectoderm close in the perineal region so as to form a median raphe, a permanent perineum is produced. A small inpocketing from the perineum, called the proctodeum, forms the anal pit. This inpocketing continues until the proctodeum and rectum join their lumina, forming the anus and anal canal. (Figure 1.) The external anal sphincter muscle develops from regional mesenchyma independently from the bowel.

The urogenital sinus continues its development into the bladder, urethra and the genital tract. The Muellerian ducts, one on either side of the body, are formed as paths for the products of the reproductive glands. They obtain complete development only in the female, and undergo degeneration in the male embryo. They grow downward close together in this region, and extend horizontally on the wall of the urogenital sinus, opening into it later. In both

* Address of section chairman. Read before the Section on General Surgery of the California Medical Association, at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

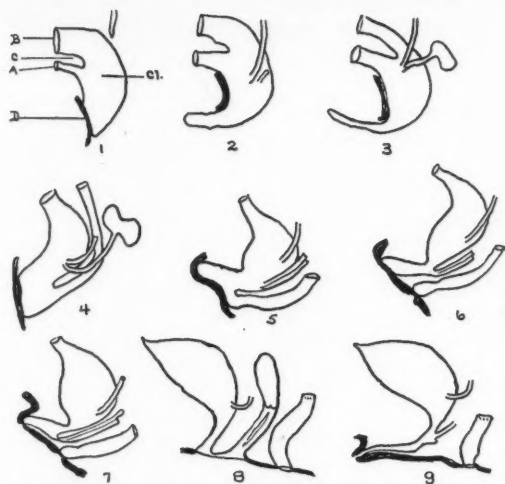


Fig. 1.—Stages in the division of the cloaca into a rectum and urogenital system, beginning in the fifth week. A, allantois; B, hind-gut; C, uro-rectal septum; C1, cloaca; D, cloacal membrane. Sketch 8 represents the normal division in the female, sketch 9 in the male.

sexes the right and left Muellerian ducts unite to form the uterovaginal canal, which develops to completion in the female. The ducts extend downward at the expense of the posterior wall of the urogenital sinus and, finally, are separated from it so that the genital tract and urinary tract are separate.

TYPES OF ANOMALIES

It is apparent, from a study of the embryological development, that a congenital abnormality would exist if: (1) the anal membrane remained intact

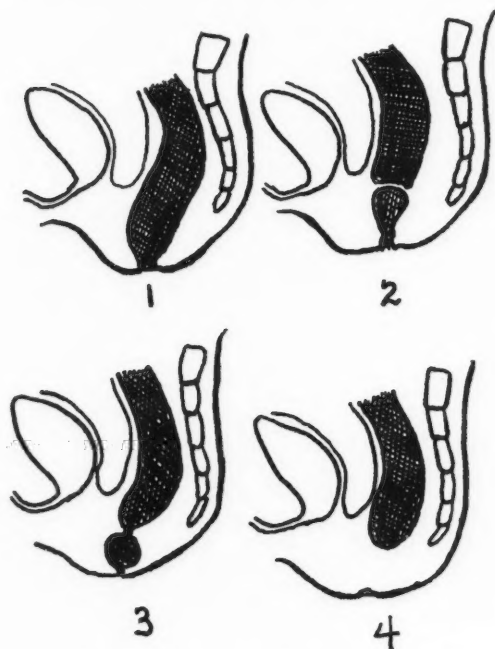


Fig. 2.—Types of anal anomalies: 1, imperforate anus; 2, imperforate rectum; 3, atresia of the rectum and anus; 4, absence of anus.

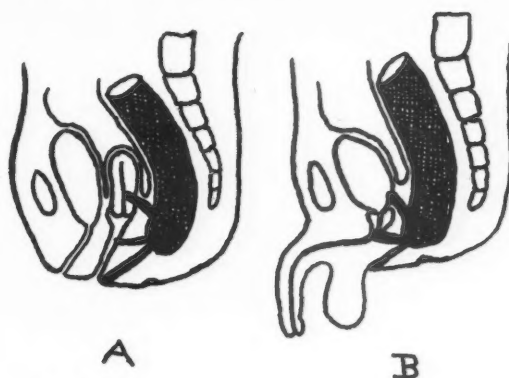


Fig. 3.—A, common types of fistulae in the female, recto-uterine, rectovaginal, recto-fossa navicularis; B, common types of fistulae in the male, rectovesical, recto-urethral, recto-perineal.

(imperforate anus), (2) the proctodeum and rectum failed to fuse (imperforate rectum), (3) this fusion was incomplete (atresia of the rectum or the anus), and (4) the proctodeum failed to develop (absence of the anus). The connection between the rectum and cloaca may be severed at practically any stage of the developmental process; therefore, the blind end of the rectal pouch may be found at any site between the recto-vesical pouch and the perineum. (Figure 2.)

A fistulous communication between the rectum and the genito-urinary apparatus would be established if the urorectal septum did not completely separate the rectum from the urogenital sinus, leaving a persistent cloacal duct. Such a fistula might open into the bladder, urethra or the perineum. In the female the down-growth of the Muellerian ducts would take over any fistulae that might be present. In such instances the fistulae would communicate between the rectum and the derivatives of the Muellerian system. In the male these congenital fistulae usually open into the membranous urethra but may communicate with the bladder or open onto the perineum. In the female they usually open into the vagina or fossa navicularis, but may open into the uterus. (Figure 3.) Fistulous openings into the bladder or urethra are extremely rare in the female. Anomalies of the anus and rectum may occur with or without fistulous communication with the urogenital tract.

Not infrequently these patients have other congenital anomalies. In this group of six cases, one had cryptorchidism, one had spina bifida occulta, one had hypospadias and spina bifida occulta, and one had calcaneo-valgus deformities of both feet.

PHYSICAL FINDINGS

Congenital anomalies of the anus and rectum usually are discovered during the initial or natal examination, but occasionally their presence is unsuspected until symptoms of obstruction develop. These include abdominal distension, tympanites, vomiting and sometimes visible intestinal patterns and fever. Examination of the anal region usually provides the information necessary for the diagnosis. When the anal membrane is unruptured a

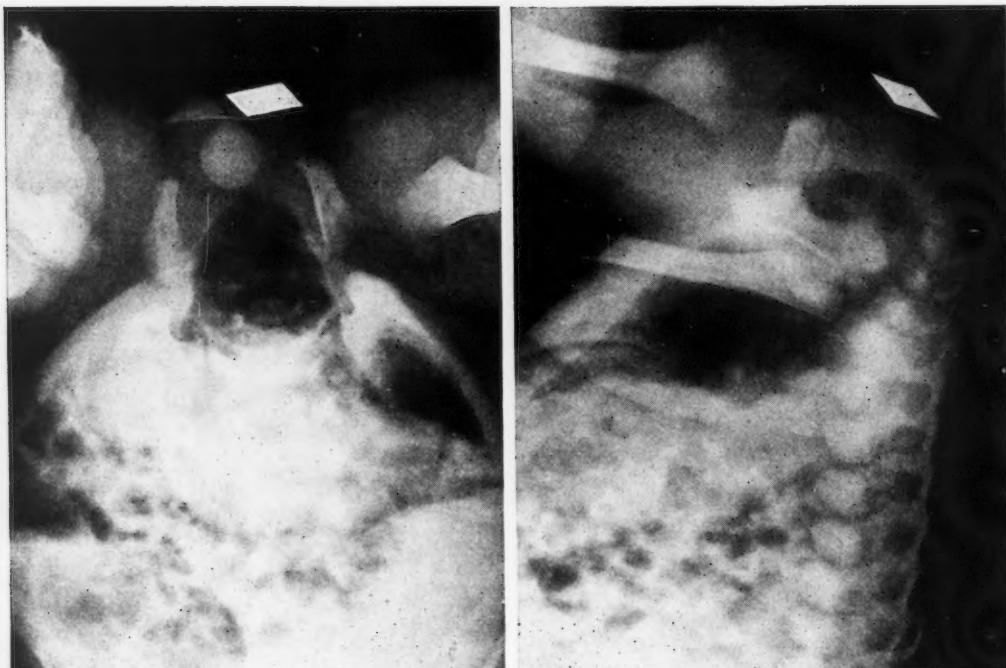


Fig. 4.—Roentgen demonstration of blind end of bowel filled with gas. Case 6.

diaphragm-like structure is found in the anal canal. The membrane usually bulges as the child strains, and there may be a dark discoloration of the membrane due to the presence of meconium on its inner surface. When the septum is at the junction of the anal canal and rectum, digital examination reveals the obstruction about 4 centimeters from the surface. The obstruction can be seen on examination with an anoscope. When the membrane in either of these types is partially ruptured the opening usually is small, perhaps 2 or 3 millimeters in diameter, and small amounts of meconium are expelled through the stenosis. Such atresias, particularly of the rectum when the anal opening is normal, may be overlooked until symptoms of obstruction appear.

In patients that have no anus there is usually a ridge in the region of the median raphe or a small dimple at the anal site. The external anal sphincter muscle should be present, but may consist of an irregular group of muscle fibers without the definite arrangement or action of a sphincter. A normally functioning sphincter muscle will pucker the skin on sharp stimulation in this region. When the blind pouch of the rectum is low in the pelvis an impulse may be imparted to the examining finger placed in the anal region while the child is crying.

Fistulae connecting the rectum with the bladder or urethra usually are discovered shortly after birth, due to the expulsion of flatus and meconium through the urethra. The same is true of fistulae communicating with the vagina or fossa navicularis.

Excellent case reports of these congenital anomalies inducing physical findings, treatment and end results have been published by Berman,² David,³ Helwig,⁴ Ladd and Gross,⁹ Pennington,¹¹ and

others. In 1930 Wangenstein and Rice¹⁴ published a practical method of determining radiologically the position of the blind end of the rectum. Gas accumulates in the small bowel shortly after birth, and is usually collected in the lower large bowel by the time the child is eighteen or twenty hours old. The infant is held head-down for a few moments, and a roentgenogram is made of the abdomen and pelvis, which shows the large bowel filled with gas. This method should not be used, therefore, until sufficient time has elapsed for gas to accumulate in the lower bowel. Figure 4 illustrates a satisfactory demonstration by x-ray of the blind rectal pouch in the pelvis. The x-ray is extremely helpful also in fistulae in the female. An opaque substance, such as barium, usually can be introduced into the fistulous opening in the vagina or fossa navicularis, thus outlining the fistulous tract and rectum. (Figure 5.)

TREATMENT

Treatment of congenital anomalies of the anus and rectum is surgical in nature, but obviously varies with the type of anomaly and with the age of the patient. No standardized procedure will be satisfactory for all of the various types of anomalies. However, the following general rules are usable in most cases.

In the first place, the operative procedure to be used depends on an accurate diagnosis. Complete and thorough physical examination is required, and roentgen examination with the patient in the inverted position is a valuable aid in locating the terminal end of the rectum. In the event a fistula exists between the rectum and urinary tract a cys-



Fig. 5.—Roentgen demonstration of bowel and recto-vaginal fistula. Case 3.

toscopic examination and at times pyelography may be indicated.

In instances of atresia due to a persistent membrane, simple excision of or a cruciate incision through the membrane, followed by repeated dilations of the rectum or anus, usually will suffice. In these cases a nonimpaired external sphincter always exists and the results should be good. In some cases of atresia of the rectum the blind end of the rectum is separated from the normal anal canal by a thick bridge of connective tissue. In such cases an extensive dissection may be required. Cases of this type have been reported in which the rectum has been anastomosed to the anal canal, but more frequently the rectum must be mobilized and brought out through the anal opening, and a new muco-cutaneous margin established.

Avoid abdominal colostomy during infancy, if this is at all possible. Infants do not tolerate colostomy or ileostomy well, and the mortality is abnormally high.

In instances of absence of the anus the surgical approach should be from below. It is physically possible to bring the bowel down to the perineum in 95 per cent of the cases, because the blind end of the bowel will be found caudad to the pelvic peritoneum. The incision should extend from the perineal body backward in the midline almost to the coccyx. If the fibers of the external sphincter are in an orderly arrangement, and there is clinical evidence that they possess a sphincteric action, an attempt should be made to preserve this sphincter by cutting through it only at one point, preferably posteriorly. In a large majority of cases, however,

these muscle fibers exist only as an irregular collection without useful function, and may be ignored. Dissection should be conducted in the midline posteriorly in front of the coccyx and sacrum, deliberately avoiding dissection toward the genito-urinary tract until the blind end of the bowel has been identified. The bowel should then be mobilized sufficiently to permit its approximation to the skin of the perineum without undue tension. The medial borders of the levator ani muscles should also be identified and sutured to each other in front of the rectum, and anchored to the wall of the rectum. I consider this important in order to secure bowel control in those cases without a functioning external anal sphincter.

If a genito-urinary fistula exists no attempt should be made to close it immediately after birth. It seems wiser to identify the bowel, establish a good opening in it and attack the fistula at a later date. Reported attempts at closing the fistula at the initial operation have failed in at least 50 per cent of the cases, and the mortality rate is usually high. The procedure in this series of cases has been to establish a perineal anal opening immediately after birth. After an interval of several months, provided the persistent fistula does not produce serious stricture of the urethra, an abdominal colostomy has been established before attacking the fistula, and before establishing a permanent anal opening in the perineum. After the urinary tract and the segment of bowel distal to the colostomy have been properly prepared, the rectum should be mobilized from below, the fistula excised, the rectum brought down, if possible, far enough to permit amputation at the fistulous opening into the rectum, thus avoiding any possible reestablishment of the fistula. Every effort should be made to approximate the edges of the levator ani muscles in front of the rectum, and to attach them to the rectal wall before the perineum is closed. Suprapubic cystostomy should be performed at the same operation, and a self-retaining catheter inserted into the bladder in order to prevent the passage of urine into the urethra and fistulous opening which has not been sutured. If this should happen the perineal wound will either open spontaneously or require opening, and the operation will have to be repeated at a later date. The colostomy may be closed at any convenient time after the perineum is well healed and the urinary tract functioning in a normal manner.

The anesthetic used in surgery of infants is of considerable importance. One per cent novocain solution is very satisfactory for the initial operation. If it is expected that the duration of the anesthetic will be long or in cases requiring extensive dissection, ether vapor as a general inhalation anesthetic is preferable. Infants tolerate this well if the oxygen content of the anesthesia mixture is kept high.

Each one of these cases must be evaluated separately, and the operative procedure best suited to the particular case should be employed.

REPORT OF CASES

CASE 1.—J. F., male, born January 5, 1937, Lane Hospital. Delivery at term, normal labor, birth weight 3,000 grams, mother gravid III, para II. Natal examination re-

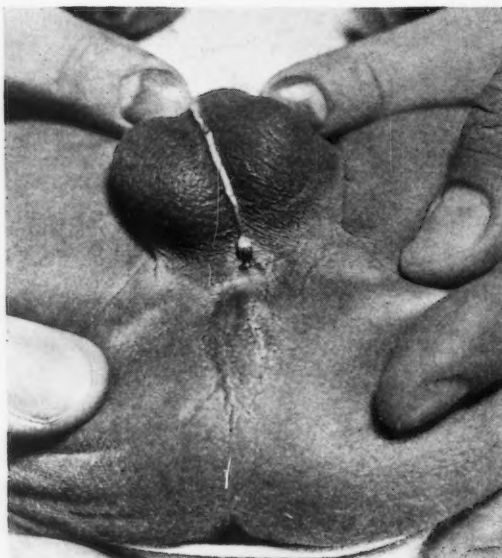


Fig. 6.—Case 1, absence of anus, before operation.

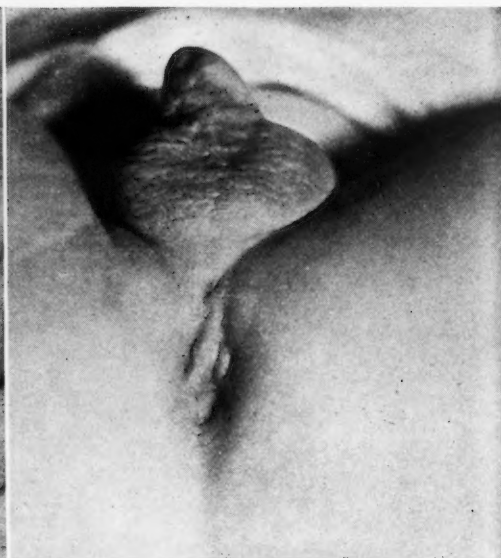


Fig. 7.—Case 1, two years after operation.

vealed a normal-appearing male infant except for the perineum. A raised white median raphe extended from the base of the penis, across the scrotum, and onto the perineum, ending at a dimple in the anal region. The anus was absent, the perineum firm, but no anal sphincter could be demonstrated by pin prick. (Figure 6.) Roentgen examination with the patient upside-down showed that gas in the large bowel did not approach within two centimeters of the lead-marker on the perineum.

Diagnosis: Absence of anus.

Operation: Twenty-eight hours after birth, under ether vapor and oxygen anesthesia, a short linear incision was made in the midline through the skin and subcutaneous tissue in the area where the anus should be. The perineal muscles were separated by blunt dissection and the distended bowel located in front of the coccyx. The rectum was freed without difficulty and opened. A large quantity of meconium escaped. The bowel opening was sutured to the skin, with interrupted sutures passing through all layers of the bowel and the skin.

The postoperative convalescence was uneventful. The patient was dismissed on the seventh day, and healing was complete on the sixteenth day after operation.

The patient was seen at biweekly intervals for three months, and was last seen January 25, 1939, at the age of 2 years. He was well, had one regular bowel movement daily, and seldom soiled himself. The anus appeared practically normal, except that no anal sphincter could be demonstrated (Figure 7).

CASE 2.—E. M., male, born August 14, 1936, Stockton, California. Delivery at term, normal labor, family physician noted absence of anus at the initial examination. On the way to San Francisco the patient vomited a small amount of dark material, "which looked like blood."

Admitted to Lane Hospital the same day, twenty hours after birth. Examination on entry showed a well developed, new-born infant, temperature 39.6° C., abdomen moderately distended, scrotum large and slightly edematous, both testes present, mild hypospadias with a small urethral orifice, anus represented by a dark-colored area, slightly depressed. There was no evidence of an anal sphincter on stimulation. Palpation revealed firm resistance in this area. There was a deep dimple over the lower end of the sacrum, suggesting spina bifida occulta. Roentgen examination with the patient in the inverted position showed "the outline of the large

bowel ends abruptly 3 or 4 centimeters from the theoretical site of the anus."

Diagnosis: Absence of anus, hypospadias mild.

Operation: On August 15, 1936. Anal colostomy, 1 per cent novocain, 7 cubic centimeters as local anesthesia. A linear incision, 1.5 centimeters long, was made through the skin and subcutaneous tissue, across and posterior to the anal depression. The perineal muscles were separated in the midline, and distended bowel located in front of the junction of coccyx and sacrum. The rectum was mobilized by blunt dissection and opened. Considerable gas and meconium escaped. The full thickness of the bowel wall was sutured to the skin.

The postoperative course was uneventful, the patient dismissed from the hospital on the seventh day after operation. The patient was last seen on August 17, 1938, age 2 years, healthy and well, except for a tendency toward constipation. Mother states that he had good control of his bowels, had not soiled himself since she trained him to use the toilet. The artificial anus was well healed, of adequate size, and a small amount of rectal mucosa filled the anus when the buttocks were spread apart. (Figure 8.) There was no evidence of an external anal sphincter; but stimulation near the anus produced a forceful elevation of the entire perineum.

CASE 3.—J. T., female, born August 9, 1933, Lodi, California. Delivery was spontaneous, but several weeks premature, birth weight 4 pounds $\frac{3}{4}$ ounces. Meconium was passed per vagina the day after birth. The family physician located the opening of a rectovaginal fistula just above the hymen, but instituted no treatment. Usually there were several bowel movements each day, but on three occasions fecal impaction occurred which required irrigations through the fistula.

The patient was admitted to Lane Hospital January 10, 1934, age 5 months. The general examination was not remarkable; the child appeared healthy, and the abdomen was not distended. No anus was present, but there was a pigmented area of dimpled skin just behind the vagina. There was no evidence of an anal sphincter on stimulation with a pin prick. Feces were passed per vagina. An irregularly shaped opening about 4 millimeters in diameter, through which pale mucous membrane pouted, was demonstrated in the posterior midline of the vagina about 1 centimeter above the hymen. Feces were discharged through this opening. Roentgen examination with barium introduced through this

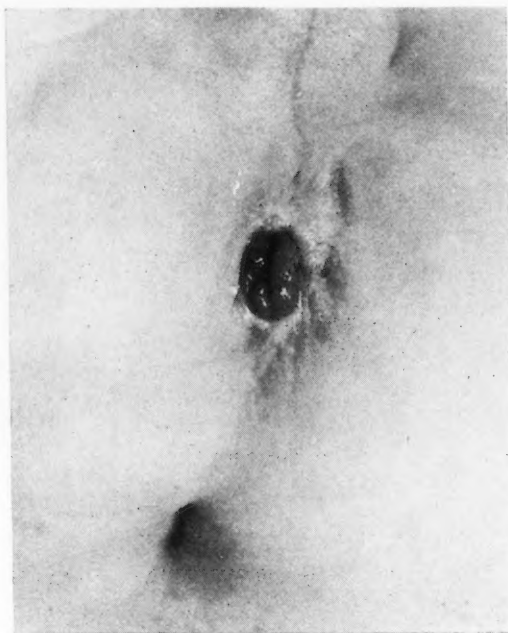


Fig. 8.—Case 2, two years after operation. Excess rectal mucosa on the left. Note deep sacral depression.

fistulous opening showed a cone-shaped canal connecting with the large bowel. (Figure 5.) The fistulous opening in the vagina was dilated to the size of a 28 F. sound, and the child dismissed from the hospital with instructions to the family to dilate the fistula and report at frequent intervals. The child reentered the hospital on January 24, 1935 (age 17 months), with the complaint by the parents that she was weak, would no longer sit up, and had failed to gain weight for the past three months. She had been fed a low-residue diet, and orange and tomato juice. Examination showed poor nutrition, unusual weakness for a child of that age and a marked secondary anemia. The red blood cells numbered 3,120,000, hemoglobin 24 per cent (Sahli), color index .33. On February 2, 1935, an abdominal colostomy was performed. The anemia responded rapidly to diet and iron therapy. On March 7, 1935, a closure of the recto-vaginal fistula and establishment of a perineal anus were done under ether vapor and oxygen anesthesia. An incision 3 centimeters long was made in the midline of the perineum, from the perineal body backward towards the coccyx. The perineal muscles were separated, the bowel identified and freed posteriorly without difficulty; but it was not easy to separate the bowel from the rectovaginal septum. This was done, however; the fistulous tract cut through, the opening in the vagina closed through the vagina, the rectum brought down to the perineal incision, amputated at the site of the fistulous opening, and sutured to the skin.

The child stood the operation well, but in a few days it was evident that the bowel had not been mobilized sufficiently and was retracting.

On March 25, 1935, a second operation was performed, the bowel mobilized to a higher level, the levator ani muscles were approximated in front of the rectum and sutured to the rectum. The bowel opening again was sutured to the skin. This time the operation was successful, convalescence uncomplicated and the child left the hospital four weeks later. The parents were instructed to dilate the perineal anus at regular intervals. The family moved to Southern California and the abdominal colostomy was not closed until September, 1936, eighteen months after the successful closure of the rectovaginal fistula and establishment of a perineal anus.

When seen in March, 1938 (two years after operation), the result was good. (Figure 9.) The child had good control of bowel movements, was attending school, and had not

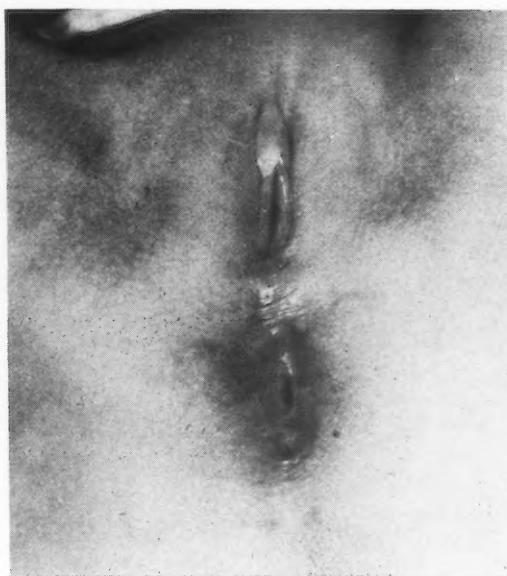


Fig. 9.—Case 3, two years after operation.

soiled herself except when given a cathartic. There was no evidence of an anal sphincter, but the perineum and anus could be drawn upward with considerable force on stimulation with a sharp instrument. The mother stated that the child could retain an enema with good control, expel or stop its expulsion, and knew when her bowels were to move.

CASE 4.—C. S., male, born March 16, 1932, Biggs, California. Admitted to Lane Hospital October 1, 1937, age 5½ years. The following history was obtained from the family and their physician: The child was born at full term, spontaneous delivery, weight 9 pounds. Absence of an anal opening was discovered the day after delivery. The abdomen was distended, and gas and meconium were passed per urethra. Operation was performed by the family physician on March 18, 1932 (two days after delivery). An incision 1½ inches long was made in the midline of the perineum, the blind end of the rectum isolated, opened and sutured to the skin. The wound was healed in two weeks. A few weeks later the anal opening began to contract, became stenosed by heavy scar tissue, fecal material began passing through the urethra, and on June 1, 1932, an abdominal colostomy was done. After this, the child gained weight and in every respect seemed to develop normally, except that he never passed any urine through the urethra after the colostomy was formed. Urine had been expelled involuntarily through the distal segment of the abdominal colostomy.

Examination on entry to the hospital, October 1, 1937, revealed a well developed, fairly well nourished boy, age 5½ years. There was a double-barreled colostomy in the left lower quadrant of the abdomen. The right testis was undescended. There was a large amount of cicatricial tissue in the perineum, in the center of which was a small fistulous opening less than 2 millimeters in diameter. Intravenous pyelography showed normal functioning kidneys, ureters and bladder. Lipiodol injected into the small perineal opening demonstrated its communication with the rectum. Cystoscopic examination was done with some difficulty, due to strictures in the urethra, but a fistulous opening was demonstrated in the membranous urethra. The following diagnoses were made: abdominal colostomy, post operative; imperforate anus with perineal anostomy; recto-urethral fistula; cryptorchidism.

The urethra was dilated twice and operation performed, October 9, 1937, under nitrous oxid anesthesia. The cutaneous opening and considerable cicatrix were excised in the perineum, the bowel identified and mobilized from the front

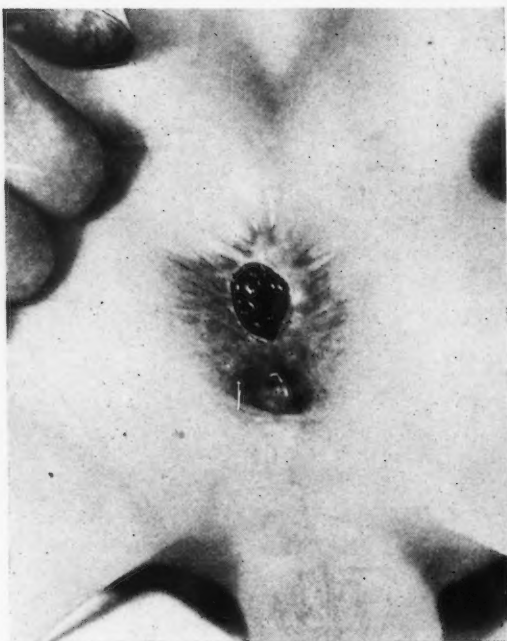


Fig. 10.—Case 4, one year after operation.



Fig. 11.—Case 5, two months after operation.

of the coccyx and sacrum. A sound was passed through the urethra into the bladder and the recto-urethral fistula cut near its junction with the membranous urethra. The rectum was then mobilized from the prostate and base of the bladder, and delivered through the perineal incision. The excess rectal wall was excised at the site of the fistulous opening into the rectum. The levator ani muscles were approximated in front of the rectum and sutured to it, but no attempt was made to suture the opening of the fistula into the urethra. The edges of the bowel were sutured to the skin, and the remainder of the perineal incision closed with interrupted sutures. A suprapubic cystostomy was done and a self-retaining catheter placed in the bladder.

The child recovered rapidly from this operation. The new anal opening healed well. Urine was passed spontaneously through the urethra on the fourteenth day, the cystostomy wound closed on the twenty-sixth day, and the patient could control urination on the forty-third day after the operation. The strictures in the anterior urethra were dilated three times after the operation. Three months later the anal opening in the perineum was well healed, about 1 centimeter in diameter with a sharp junction between skin and mucosa. The abdominal colostomy was closed January 29, 1938, and he began having bowel movements through the anus three days later. On the twenty-fifth day after the colostomy was closed it was noted that the patient could tell when his bowels were to move. In two months he could retain or expel a tap-water enema at will, and seldom soiled himself. He was last seen April 18, 1939, fifteen months after his last operation. He had complete control of his urine; the anus was well healed without stenosis or prolapse, and he had good bowel control, although no external anal sphincter could be demonstrated. (Figure 10.)

CASE 5.—R. S., male, born October, 1937, at Watsonville, California. Full term, spontaneous delivery, first-born child, weight 8½ pounds. Absence of an anus was discovered after birth, and a perineal operation was done the same day by the family physician. There was no anal canal and no evidence of an anal sphincter; but the blind end of the bowel was located, opened and sutured to the skin on the perineum.

Development was uneventful for six weeks, when the mother observed the passage of fecal material per urethra. The anal opening contracted and eventually became constricted to a narrow opening, and both defecation and urination became difficult.

Admitted to Lane Hospital August 7, 1938, age 10 months. General condition was good, no abdominal abnormalities were noted, external genitalia were normal in appearance. There was a strictured artificial anus in a markedly scarred area in the perineum, the anal opening being very small. Feces and urine were passed partly through the urethra and partly through the small anal opening. Two strictures in the anterior urethra were identified. There was a deep depression over the middle of the sacrum suggesting spina bifida occulta. The diagnoses of imperforate anus and recto-urethral fistula were made. The urethral strictures were dilated several times under general anesthesia, and on August 29, 1938, an abdominal colostomy was performed. The child did well after this operation, but it was noted that urine was passed partly through the urethra and partly through the stenosed artificial anus, which had been made on the day of birth. The urethral strictures were dilated to a size 18 F. sound and a circumcision done.

The child reentered Lane Hospital February 18, 1939, and three days later the recto-urethral fistula and stenosed artificial anus were operated upon under ether vapor and oxygen anesthesia. An elliptical incision was made around the anal opening, and this incision carried backward in the midline almost to the coccyx. The perineal muscles were separated and the bowel identified and mobilized without difficulty from in front of the coccyx and sacrum. A sound was passed through the urethra into the bladder; the bowel mobilized anteriorly; the fistula, which measured nearly 1 centimeter in diameter, was cut near its opening into the membranous urethra, and the bowel freed from the prostate and base of the bladder. The mobilized rectum was delivered into the wound and excised at the fistulous opening into it. The levator ani muscles were approximated in front of the rectum and sutured to it, no attempt being made to suture the fistulous opening in the urethra. The bowel wall was sutured to the skin and the remainder of the perineal incision closed with interrupted sutures. A suprapubic

cystotomy was done, placing a self-retaining catheter in the bladder. The patient stood the operation fairly well, but was given a transfusion of 150 cubic centimeters of citrated blood. Convalescence was not remarkable. The perineal incision and new anal opening healed well, the suprapubic drainage tube was removed on the twenty-seventh day, and the cystotomy wound closed spontaneously on the thirty-eighth day after operation. At present this child still has an abdominal colostomy, but is voiding normally and the perineum is in good condition. (Figure 11.) It is planned to close the colostomy within the next month.

CASE 6.—D. D., male, born March 23, 1939, Westwood, California. Labor was spontaneous, at term, first born, birth weight 6 pounds 13 ounces.

The family physician noted the absence of an anus at the initial examination shortly after delivery, and no other abnormalities were detected at that time. However, about eighteen hours after birth flatus and meconium began passing per urethra. The genitalia otherwise were normal.

Patient entered Lane Hospital March 24, 1939, about thirty hours after birth. Examination revealed a fairly well developed, new-born infant. There was a slight icteric tint to the skin and no abnormalities of the head, neck, thorax or abdomen were noted. There was no abdominal distension. Both testes were in the scrotum. There was no anal opening, but in its place there was a shallow depression with some wrinkling of the skin around it. On stimulation by a pin-prick, a sphincteric contraction was produced. Flatus and meconium, as well as urine, were passed at frequent intervals through the urethra. There was a mild calcanoevalgus deformity of both feet.

Roentgen examination in the inverted position showed "the gas shadow in the rectum reaches within two centimeters of the lead-marked place where the anus should be." (Figure 4.) The diagnoses of congenital absence of the anus and congenital recto-urethral fistula were made. Because the intestinal content was escaping without difficulty operation was delayed several hours until the child could be fed and given fluids. Operation was performed March 25, 1939, under local anesthesia, forty-eight hours after birth. An elliptical incision, 2 centimeters long, was made around the shallow depression in the anal region. The skin over the depression was excised, revealing muscle fibers in the more or less orderly arrangement of an external sphincter, but there was no central opening in the muscle. These fibers were cut anteriorly, the muscle separated by blunt dissection, and the blind end of the moderately distended bowel identified about 3 centimeters from the skin. The rectum was mobilized posteriorly without difficulty, but no attempt was made to free it anteriorly or to treat the fistula. The rectum was brought down to the perineal incision, the sphincter muscle sutured anteriorly, the bowel opened and the edges sutured to the skin.

The patient's recovery was uneventful, and healing at the mucocutaneous margin was complete in twelve days. Stools were passed through the anal opening regularly and without difficulty, while meconium and flatus no longer were expelled per urethra. No action of an anal sphincter could be demonstrated while the patient was in the hospital. He was dismissed fifteen days after operation.

COMMENT

It is planned to establish an abdominal colostomy in about ten months, unless the present anal opening becomes ineffective, requiring a colostomy at an earlier date. After the abdominal colostomy is established, the rectum will be mobilized by a perineal approach, the recto-urethral fistula excised, a new and permanent anal opening made, and a suprapubic cystotomy done. A few months after this procedure has been completed satisfactorily the abdominal colostomy will be closed. This series of operative procedures, as planned, will require an elapse of about fifteen to eighteen months' time.

SUMMARY

The embryological processes leading to the formation of congenital anomalies of the anus and rectum are summarized. Clinically, these cases may be divided into four types: (1) imperforate anus, (2) imperforate rectum, (3) atresia of the anus or rectum, and (4) absence of the anus. Congenital fistulae from the rectum to the urinary tract in the male, or the genital tract in the female, may accompany any one of the above anomalies. The basic principles underlying the operative treatment of these anomalies are presented.

Six cases of congenital anal and rectal abnormalities are reported from the surgical service of the Stanford Medical School. All six of these cases were of type 4, *absence of the anus*, two of them without congenital fistulae, one with a fistula from the rectum to the vagina, and three with fistulae from the rectum to the membranous urethra. A normally functioning external anal sphincter was present in only one case (Case 6). Nevertheless, four of these cases have been followed for fifteen months or more since their last operative treatment. None of these four has an active external anal sphincter, yet all four have good control of their bowels, seldom, if ever, soil themselves, and for all practical purposes have normal bowel behavior. These patients seem to control their bowels by contracting the levator ani muscles, which elevates the perineum, and by voluntarily contracting their gluteal muscles. By this maneuver they are able to retain, expel or stop the expulsion of an enema or other bowel content. There is every reason to believe that this voluntary (or conditioned) control will persist throughout life; but an opportunity to observe such patients for more than a few years during infancy or childhood has not yet occurred.

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THE PATIENT'S CONCEPT OF MATERNITY CARE AS OBTAINED FROM POPULAR SOURCES*

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A LITTLE over three hundred years ago, in 1591, a woman of rank was burned alive on Castle Hill in Edinburgh, Scotland, because she sought relief from pains of childbirth. This incident occurred in the reign of Queen Elizabeth, when Shakespeare, Bacon, and Sir Walter Raleigh were making lasting fame, and nearly one hundred years after the discovery of America. Two and a half centuries later doctors, although denounced by the clergy, began to attempt special maternity care. In 1847 Queen Victoria's delivery under chloroform produced a storm of abuse. However, her doctor, Professor James Simpson, was later knighted for his extraordinary services. Since these events and many others, commonsense has slowly but surely prevailed; and now we have a public concept of maternity care which is a far step from that of even fifty years ago.

POPULAR SOURCES OF INFORMATION

No small part of this advance in public knowledge is due to the influence on maternity patients of the information obtained from popular sources, such as bulletins and pamphlets from the United States Department of Labor and insurance companies, from literature issued by free clinics, and from women's and other popular magazine articles. Where formerly these topics were little discussed and the prospective mother had but little help to depend upon, her care now is the subject material of much-read magazine articles and furnishes the conversation for many an afternoon tea.

Could one learn something of the information which the prospective mother has at her command, one could more satisfactorily care for the patient—at least more satisfactorily from the patient's standpoint.

AUTHOR'S QUESTIONNAIRE

To try to obtain some concept of the average patient's ideas concerning prenatal care and relief of labor pain, I have attempted to review the numerous recent popular articles on such subjects, and to scan the available free pamphlets, while I have obtained answers from about two hundred past patients, to the following questions:

1. From what sources do you obtain your information concerning maternity care and a choice of obstetrician?
2. Would you prefer complete loss of consciousness, or not, at childbirth?
3. What pamphlets, books, and magazine articles on obstetrics have you read?
4. What is your present understanding of "twilight sleep"?

The questionnaire answers have been quite enlightening and very interesting. They are, of course, to a considerable extent a measure of the intelligence of the individual, but have given an insight

into the knowledge of the average patient and what is influencing that knowledge.

SOURCES OF INFORMATION

Concerning the sources of the patient's information, one finds that the prospective mother actually depends more on the advice of her young friends who have had children recently than on any other source, and on these friends largely for her choice of an obstetrician. Nurses and the family physician here have considerable influence.

Magazine articles, especially on obstetrical anesthesia, of which there have been a great number during the last two years in just the more common magazines, seem to have been widely read by the average patient, but to have been taken with interest rather than seriously as authority. When asked as to whether or not she wishes complete loss of consciousness, about 30 per cent demand complete oblivion and apparently fearing the distress of childbirth. Another 25 per cent say that giving birth to a baby is a thrilling experience, and they would like to know what is happening, at the same time desiring a reasonable relief from pain. Another 33 per cent seem to have the interests of the baby almost entirely at heart, and desire only as much anesthetic as, in the discretion of the physician, is *entirely* safe for the baby. One replied that, after nine months of waiting, she would not miss the baby's first cry—the hearing of which she thought one of life's biggest moments! Another, having had for her first and third deliveries an analgesia with nembutal and nitrous oxid, and a morphin scopolamin twilight sleep for her second, said that she much preferred the conscious analgesia. Still another greatly disliked the stupor in which she remained for about twenty-four hours after the use of morphin scopolamin.

TWILIGHT SLEEP

The replies to the question regarding "twilight sleep" show that the average patient actually has but little technical knowledge of obstetrical anesthesia. Most seem to have the impression that this type of anesthetic is dangerous for the baby and, therefore, not satisfactory. It was described chiefly as producing complete loss of consciousness, and, in their minds, was brought about by a variety of means such as spinal anesthetic, chloroform, ether, rectal anesthesia, gas, and only to a very few by hypodermic opiates. Evidently the average patient has little idea of the drugs used when she is talking of her friends, or of herself as having had "twilight sleep."

WIDE VARIETY OF ARTICLES ON MATERNAL CARE

There has been such a variety of articles on maternity care in popular magazines that it is extremely difficult to determine what effect they are having. Most articles, especially on anesthesia, seem to have been scientifically unsound, misrepresenting the facts, and as a result have to some extent made it difficult for the average practicing physician to treat his patient in the best interests of her health and the health of her unborn child. At the American Medical Association sessions in Kansas City the obstetrical section was greatly stirred in its discussion of the popular magazine article.

* Chairman's address. Read before the Section on Obstetrics and Gynecology of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

Dr. B. G. Hamilton of Kansas City made the statement that "American obstetrics seems to be becoming a competitive practice to please American women in accordance with what they read in lay magazines." At the same meeting, Dr. Rudolph Holmes declared that he wished he had not introduced "twilight sleep" into this country from Germany, stating that it was first brought to our American women unscientifically through the enterprise of *McClure's* magazine, and since has been used too much on patients, who have virtually demanded it, by those unskilled with it.

The series of highly emotional articles by Paul De Kruif, running in *The Ladies' Home Journal*, have, I believe, engendered more harmful fear in the minds of women than they have produced good from the danger of sepsis point of view. Another sensational magazine article alluded to the pain and dangers of childbirth, and went so far as to advocate cesarean section as the only humane method of delivery. Another writer maintained that the pains of childbirth are largely psychological, and little or no anesthesia is either safe or necessary. It is not illogical to assume that the conditions of the mind affect the muscles at childbirth, and it is therefore the opportunity of the obstetrician to banish fear from his patients during his association with them in their prenatal care. It is estimated that two out of three normal births in the United States today are accomplished without the aid of any form of pain killer; in fact, a quarter of a million women were delivered last year without the advantage of any physician's care. I feel sure, however, that most physicians would concede that childbirth is the most painful experience endured by human beings, and would like to see the public taught that semianesthesia is still a perfectly reasonable and safe obstetrical help. There are many articles, such as those recently running in *Good Housekeeping*, which instruct their reader to this point of view. These consistently maintain that it is a mistake to say that childbirth can always be painless, but at the same time they set forth the advantages and possibilities of taking the pain and agony from childbirth.

Many magazines are rendering a valuable service in teaching their readers to recognize and demand better obstetrical care. This recognition is one of the great reasons for the hope of fewer deaths. It cannot be denied that the problem is too wide to be left entirely to the chance handling of the individual woman by the individual average physician. Community education, be it by nonmedical magazines or not, can and is being of value in teaching public health.

OTHER EDUCATIONAL AGENCIES

The program of the American Congress on Obstetrics and Gynecology should go far to educate physicians and nurses, and surely the public should commend the doctors in such efforts. Possibly some of us are not familiar with the Wagner Bill for the National Health Program. It is really an amendment to the Social Security Act. Only a small portion of the scope of the bill is the section on maternal and child health service. It proposes to spend some eight millions in 1940, twenty millions

in 1941, and thirty-five millions in 1942 in promoting the health of mothers and children. The details of this program are too intricate to discuss, but whatever we may think of such legislation there is certain to be an extensive program of public obstetrical education immediately before us.

EVALUATION OF ARTICLES IN POPULAR MAGAZINES

Edwin F. Daily, M. D., the director of the Maternal and Child Health Division of the United States Department of Labor, expressed the opinion, in a letter regarding the United States Government maternity service, that popular magazine articles are mostly unscientific and misrepresent the facts, but that the free literature distributed by women's magazines, insurance companies, and Government bulletins are considerably responsible for a gradually decreasing death rate at childbirth. Certainly, this latter type of literature is doing much to influence the patient's concept of good care, and aids the private physician who may be backward or lax in his work to better his standards. A collection such as I have made of this literature impresses one with its high quality and thoroughness, and especially with its enormous distribution. The United States Government pamphlet, "Prenatal Care," alone has had a distribution of ten million copies. Next in popularity come the pamphlets of the Metropolitan Life Insurance Company. Thirty-four thousand copies of its booklet, "The Expectant Mother," was distributed during last year in only our seven Pacific Coast States.

All literature of this sort furnishes considerable good advertising for the obstetrician, and does much in keeping the average patient in closer touch with, rather than keeping her away, from her doctor, as some have claimed. Practically all sources of information encourage hospital care, but at the same time give valuable assistance in preparation for a home delivery. I find that at least two-thirds of my patients are sending for and reading the Government bulletin in spite of the rather complete booklet with which I supply them.

GOVERNMENTAL BULLETINS

The Government bulletin instructions are thorough and of high caliber. Edwin F. Daily, M. D., is the director of the Child Hygiene Division by which they are published. He is a graduate of the Colorado Medical School, and a member of the Illinois Medical Society and the American Medical Association. During 1938 alone there were 218,638 copies of the pamphlet, "Prenatal Care," just referred to and distributed at Government expense.

OTHER MEDIA

The *Good Housekeeping* has Josephine Hemenway Kenyon, M. D., as director of its so-called Health and Happiness Club. Doctor Kenyon is a graduate of Johns Hopkins and a member of the American Medical Association, and without doubt is qualified to edit the literature of this magazine.

The *Ladies' Home Journal* uses the bulletin, "Getting Ready for Motherhood," by Dr. Herman Bundeson, President of the Chicago Health Department. Doctor Bundeson makes the statement that the advice given in this booklet is not his, but

the combined opinions of many of the country's leading obstetricians. Since it was first offered to the public in July, 1938, there have been 2,700 copies supplied through that publication. In addition to the booklet, this service answers many letters a year in response to requests for special information.

The Metropolitan Life Insurance Company issues a forty-three page booklet, "Information for Expectant Mothers." They say that it has been compiled from the extensive literature of the United States Department of Labor and of the New York Maternity Center, and from pamphlets of the National Public Health Nursing Organization; and, although gathered by laymen, is authoritative in every detail. They feel that, in addition to helping the general program of public health, it saves them money in the conservation of lives.

The Prudential Insurance Company makes use of Doctor Bundeson's booklet in much the same way.

The free, or part-free clinics of larger cities are doing much to educate the charity patient. The Los Angeles Health Department's charity division last year cared for eighty home cases and three hundred hospital cases. In addition to well-organized literature, they are now instructing the patients by a series of moving pictures at the free clinics.

IN CONCLUSION

Certainly, all this instruction by laymen is doing much toward creating a higher standard of maternity care. It is valuable to the patient and, indirectly, to her doctor. It keeps the average physician aware of, and awake to his responsibility. We, as doctors, rather than make light of such popular literature, should encourage the public use of the materials at their command. It behooves us, in a way, to educate our patients during the period they are in our care. We should take time to learn as much as possible of each patient's personal psychology, and determine her likes and dislikes; to consider her demands for anesthesia, to learn her hopes and fears and, above all, to completely gain her confidence and dispel her fears. She should be treated not as just another case, but as the individual personality which she is.

3770 Twelfth Street.

THE PRESENT STATUS OF ARTIFICIAL FEVER IN THE TREATMENT OF SYPHILIS*

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ARTIFICIAL-FEVER therapy has been employed in the treatment of syphilis for over twenty years. During this period much has been done to evaluate its place in the management of the patient with this disease. While the beneficial effects of artificial-fever therapy are frequently striking, we have learned that it is not a panacea, and must

be regarded simply as an addition to our armamentarium for use only under certain conditions. The limitations and hazards of this form of therapy have been pointed out very clearly. The purpose of this paper is to discuss the indications for artificial-fever therapy in the treatment of syphilis.

ARTIFICIAL-FEVER THERAPY

Artificial fever may be induced by any one of the following methods: the introduction into the patient of a parasitic disease which is usually accompanied by fever, such as malaria; the injection of a foreign protein; injections of chemical substances such as sulphur; electrical means such as the administration of diathermy or radiotherapy, or placing the patient in an electromagnetic field; and simple immersion of the individual in a hot bath, placing him in a heat cabinet, or wrapping him in blankets and adding an external source of heat.

There has been a tendency recently to employ the simpler methods for inducing artificial fever. Malaria is still the method of choice where a biologic method is used, and some form of radiant heat is preferred when a mechanical method is employed.

The value of each of the methods is undeniable, and each has its special indications. I have been more interested in mechanical methods because there is need for a form of artificial-fever therapy for the ambulatory patient. To meet this need we have developed a simple plan called the blanket method, which has been described in detail elsewhere.^{1,2} We have found little difficulty in producing and controlling artificial fever by this method, but it requires an experienced staff and a well-equipped hospital. Artificial-fever therapy should be administered only in a hospital, and only with due consideration of its dangers. Under these conditions, the hazards of artificial-fever therapy are reduced to a minimum. During the past five years, we have given over three thousand such treatments. One death occurred in a very badly deteriorated paretic. The reader is referred to previous publications^{1,2} concerning the indications, contraindications, hazards, and technique of inducing artificial fever.

RATIONALE OF ARTIFICIAL-FEVER THERAPY IN SYPHILIS

For centuries, heat has been used in various ways for the cure of disease and the alleviation of suffering. As in the case of many other medical discoveries, clinical experience preceded scientific explanation. Von Jauregg,³ because he noted that patients insane with general paralysis occasionally became sane after some febrile episode, attempted to induce fever in his patients with similar conditions. After trying to produce fever artificially by many methods, he finally chose malaria as the most satisfactory. In 1918 he showed that artificially induced malaria for treatment of paresis produced beneficial results which were at times astonishing. Later, it was shown that comparable therapeutic results could be obtained by various other methods for inducing artificial fever, provided the temperature was elevated to a certain height and maintained at that height for a sufficient length of time. It became apparent to most workers that the essential factor in this form of therapy was

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the elevation of temperature rather than the method by which it was produced.

The beneficial effects of artificial-fever therapy may result either from injury or destruction of the infecting parasite, or from increased resistance of the host against the parasite. It is probable that the various methods differ in the degree to which they produce these effects. It is interesting to note that artificial-fever therapy has been of value primarily in two infections, namely, syphilis and gonorrhea. In both of these diseases the infecting organisms are pathogenic only to the human host. When placed in an environment outside the body, they are easily destroyed. Another common characteristic of these two diseases is that they are usually afebrile. These facts indicate that the organisms may be more vulnerable to sudden changes within the host's body. A rapid elevation of temperature creates an environment which is not suited for the growth of these parasites.

Carpenter, Boak, and Warren⁴ demonstrated that the thermal death point of *Treponema pallidum* *in vitro* was 42 degrees C. (106.7 degrees F.) maintained for one hour; 41 degrees C. (105.8 degrees F.) for two hours; 40 degrees C. (104 degrees F.) for three hours; and 39 degrees C. (102.2 degrees F.) for five hours. Other workers have shown that experimental animals can be protected against successful inoculation with *Treponema pallidum*, and that syphilitic lesions can be sterilized of *Treponema pallidum* and caused to involute rapidly by elevating body temperature of the animals to heights within limits that can be attained safely in man. Bessemans and Thiry⁵ demonstrated that, in human tissues, *Treponema pallidum* in primary and secondary syphilitic lesions can be rendered immotile and avirulent if the tissues are raised to a temperature of 42 degrees C. (106.7 degrees F.) for one hour, or 40 degrees C. (104 degrees F.) for two hours.

It is quite evident from *in vitro* studies, animal experimentation and studies on human tissues, that the *Treponema pallidum* can be either destroyed or markedly affected by temperatures between 40 degrees C. (104 degrees F.) and 42 degrees C. (106.7 degrees F.).

In addition to the direct effect of heat upon these organisms, artificial fever probably plays some part in stimulating tissue resistance.

ARTIFICIAL FEVER IN THE TREATMENT OF EARLY SYPHILIS

Inasmuch as temperatures that can be safely induced in man have such a profound effect upon *Treponema pallidum*, it is natural to ask, why not use this form of therapy in early syphilis and sterilize the individual of his parasites quickly? Considerable work has been done in the treatment of the early phase of syphilis with artificial fever, but the results have been unsatisfactory. Kerl,⁶ between the years 1925 and 1929, observed 1,600 cases of early syphilis treated with short courses of arsphenamin and bismuth, combined with malarial therapy. He concluded that malarial therapy in early syphilis was of little curative value. Artificial fever produced by mechanical methods, when

given alone, has failed uniformly in the treatment of early syphilis.

In 1935, we (Epstein and Cohen²) subjected thirty-three patients with primary and secondary syphilis to artificial-fever therapy without any other treatment. Although in 94 per cent of these cases the darkfield examinations were rendered negative and the lesions healed promptly with artificial fever, yet there was no evidence that the infection had been completely eradicated. In three patients there was recurrence promptly following cessation of the fever therapy, and in no patient was a positive blood Wassermann rendered negative.

At present, considerable experimental work is being done combining artificial fever produced mechanically with short courses of neoarsphenamin and bismuth. This procedure is highly experimental, and to me does not seem to offer a solution to the problem of early syphilis.

Probably the most important reason why fever therapy has failed to cure early syphilis lies in the fact that the human tissues do not heat up uniformly when subjected to artificial fever or during fevers of natural origin. Sampson⁷ showed that during states of artificial fever there was a considerable variation between the temperature of the oral and rectal regions, as compared with the temperature of the venous blood, the subcutaneous tissues, the muscles, and the skin. The temperature of the venous blood remains 1 to 2 degrees centigrade below the oral temperature, and the temperature of the subcutaneous tissues and the exposed skin is also lower. Our inability to raise the temperature of all the tissues of the body to the thermal death point of the *Treponema pallidum* probably accounts for the failure of artificial fever to cure early syphilis.

ARTIFICIAL FEVER IN THE TREATMENT OF LATE SYPHILIS

At the present time, artificial-fever therapy, as applied to syphilis, has proved of definite value only in the treatment of the various forms of neurosyphilis. We have found it of little benefit in the management of patients with early syphilis, "Wassermann-fast" latent syphilis, and in the many other varieties of late syphilis. Artificial fever is limited in its use to the treatment of neurosyphilis, but never should be used as the only method of attack. In the treatment of resistant syphilis of the central nervous system, we should not depend upon any one method of therapy, but should be prepared to use every therapeutic agent at our command, according to the indications of the particular case. When artificial fever is induced by physical means, chemotherapy should be continued simultaneously with the fever therapy. Drug therapy should be given intensively and adequately, and in undiminished dosage. When artificial fever is induced by malarial inoculation, chemotherapy should follow the termination of the malarial paroxysms.

The results that one might expect to obtain in the treatment of the clinical forms of neurosyphilis are dependent not alone upon the therapeutic procedures applied, but also to a large extent upon the type of neurosyphilis being treated and the extent

of the damage that has been produced by the disease before therapy is instituted. It is well known that the meningovascular types of neurosyphilis respond very well to therapy. When treating the degenerative forms of neurosyphilis, such as paresis, taboparesis, and tabes dorsalis, the therapeutic response is frequently dependent upon the degree of degeneration present. Regardless of the method of therapy used, we would not expect to benefit the markedly deteriorated paretic; while, on the other hand, brilliant results may be obtained in the early paretic with a minimal amount of destruction of his cerebral cortex. In judging a given method it is very important, therefore, that these factors be considered carefully.

Artificial fever is indicated primarily for the treatment of general paresis and taboparesis. In these forms of neurosyphilis it should be instituted as soon as possible. In many cases this type of therapy is almost an emergency procedure as the degenerative process may progress rapidly.

We consider a course of pyrotherapy to consist of a total of fifty hours of fever, the temperature being maintained between 40 degrees C. (104 degrees F.) and 40.5 degrees C. (105 degrees F.). Ten weekly treatments are given, each consisting of five hours of maximum temperature. It is frequently necessary to give repeated courses of fever after six-month to yearly intervals.

In tabes dorsalis, artificial fever should be employed when the condition has not responded well to chemotherapy. It should be used when lightning pains or crises have been intractable. It is occasionally of value in the progressive optic atrophy of tabes.

Fever therapy is indicated in all other forms of neurosyphilis that prove resistant to drug therapy. In meningovascular, in diffuse cerebrospinal, and in asymptomatic neurosyphilis, fever therapy should be used only after drug therapy has been given an adequate trial.

RESULTS OF TREATMENT OF NEUROSYPHILIS WITH FEVER THERAPY

For several years we have combined fever therapy with drug administration, according to the indications given above, in our ambulatory clinic and private practice. In 1938, I reported the therapeutic results obtained in eighty-seven such patients.⁸ The various forms of neurosyphilis were represented in the group. The clinical and serologic response was very satisfactory and compared favorably with those from other methods of fever therapy. A brief summary of the findings is as follows:

There were 17 cases of general paresis, 17 of taboparesis, 23 of tabes dorsalis, 20 of asymptomatic neurosyphilis, and 10 of acute meningovascular neurosyphilis.

The entire group had been under observation for an average of 37.7 months, 19.7 months before fever therapy, and 18.0 months after fever therapy.

Drug therapy, given throughout the period of observation, consisted mainly of the use of bismuth salicylate, neoarsphenamin, and tryparsamid.

General Paresis.—The spinal fluid Wassermann either reversed to negative or became less positive in 76.4 per cent of the seventeen cases with general paresis. The colloidal gold curve became normal or improved in 76.4 per cent.

In general, the clinical response paralleled the serologic findings. Seven patients obtained complete clinical remission, five were moderately improved, three showed slight improvement, and two no improvement.

Taboparesis.—The seventeen patients with taboparesis did not respond as well as did the group with general paresis. In 52.9 per cent, the spinal fluid Wassermann either reversed to negative or became less positive. The colloidal gold curve became normal in 11.8 per cent and improved in 70.5 per cent. In eight patients the clinical results were excellent, in eight moderate or slight improvement was noted, and one showed no improvement.

Tabes Dorsalis.—The spinal fluid Wassermann reversed to negative in 73.9 per cent of the twenty-three cases, and became less positive in 4.3 per cent. The colloidal gold curve became normal or improved in 60.2 per cent. The clinical effects did not parallel the serologic response, although many of these patients experienced considerable relief from their symptoms.

Asymptomatic Neurosyphilis.—In the twenty cases with this form of neurosyphilis, the spinal fluid Wassermann reversed to negative, and the colloidal gold curve became normal in 70 per cent and improved in 15 per cent. These findings are more significant because this group of patients had had an average of one and one-half years of drug therapy before fever therapy had been given.

Meningovascular Neurosyphilis.—There were ten cases in this group. The spinal fluid Wassermann reversed to negative or became less positive in 70 per cent, while the colloidal gold curve either became normal or improved in 90 per cent.

COMMENT

It was noted that, in the entire series of cases, the cell count was the most easily influenced element in the spinal fluid, becoming normal in 95 per cent.

The protein content of the spinal fluid was reduced to normal or improved in 74 per cent of the series.

Further observation of this group of patients and others will be necessary in order to confirm or modify the serologic and clinical results obtained. At present they are encouraging and indicate that this method of approach to the problem of the treatment of neurosyphilis is very satisfactory.

SUMMARY AND CONCLUSIONS

Artificial-fever therapy has a definite place in the management of the patient with neurosyphilis. It is of particular value in paresis and taboparesis, and is a helpful adjunct in the treatment of other forms of neurosyphilis that prove resistant to drug therapy. Our experience in the group of patients with asymptomatic neurosyphilis indicates that fever therapy may be of considerable value in preventing progression of the disease before late lesions appear.

Up to the present time, artificial-fever therapy without other therapy has been found to be unsatisfactory in the treatment of early syphilis. Certain investigative work is being conducted, combining artificial fever with drug therapy for cases of early syphilis. The value of this procedure has not been established.

We have found pyrotherapy unsatisfactory in the treatment of "Wassermann-fast" latent syphilis, and of all forms of late syphilis other than neurosyphilis.

The technical difficulties and hazards of inducing artificial fever have been eliminated to a large extent. This form of therapy should, however, be carefully controlled, and should be administered only by a thoroughly trained personnel and in an adequately equipped hospital.

The theoretical aspects of the rationale of artificial-fever therapy in syphilis have been discussed.

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SANTIAGO RAMÓN Y CAJAL*

By JOHN B. DOYLE, M.D.
Los Angeles

ALMOST a century ago there arose from the common people of Spain a character of such outstanding proportions and versatility as to warrant a place in history with Cervantes, Velasquez and Calderón de la Barca.

Santiago Ramón y Cajal was born at Petilla, in Aragon, on May 1, 1852. His father was a conscientious, ambitious, enterprising man who was not content to remain a "surgeon of the second class," and so, by dint of hard work and economies, he completed the course in medicine while burdened with an increasing family. From him Cajal inher-

ited his physical and mental characteristics, including a will to power, determination, ambition and a splendid memory. Cajal's mother was a woman of fine character and great beauty. It was Cajal's regret that she did not transmit her physical characteristics to any of her children.

BOYHOOD DAYS

Like the majority of youngsters brought up in the country, Cajal was an outdoor enthusiast who, though shy, delighted in pranks. At an early age he began to collect birds and birds' eggs. Playing at war, he developed a science of ballistics, and even wrote a small treatise on lapidary strategy.

Formal education for Cajal began at 4 years of age. By 7 or 8 he was manifesting unusual interest and appreciable talent in both drawing and painting with water colors, to the disgust and dismay of his father, who wished that nothing might interfere with the classical education he had planned for him in preparation for a medical career. Before Cajal was 8 he was profoundly impressed by the return of Spanish troops from victories in Africa; and at that early age the germ of a sense of patriotism was awakened in him. A stroke of lightning, which killed a priest while he was ringing a bell in a belfry, seriously disturbed his faith in the working of a divine providence. On the other hand, he was greatly moved by an eclipse, which had been predicted by men who could not control lightning.

Life for Cajal, when between 10 and 13 years of age, was stormy. Bored by memorizing Latin and Greek, his obstinacy and defiance led to floggings. On one occasion he was deprived of a part of his food for five months and became greatly emaciated. In order to provide his son with a trade, if not a profession, his father, in desperation, apprenticed him to a barber. Cajal made friends in this environment. By writing poetry, for the barber's assistant, to a servant girl, he obtained music lessons. For music, however, he had no talent and made little progress. When he was apprenticed at a later date to a shoemaker, he soon became so adept that he was entrusted with work of the most fastidious nature. On being permitted to return to school, he resumed drawing, at which he excelled. This led to a very embarrassing incident when he caricatured a prominent teacher, whose injured egotism would not be soothed.

YOUNG MANHOOD

At 16 years of age Cajal's interest in photography was awakened. He was "astonished unspeakably" by manipulations for the production of a photogenic layer on wet collodion, and "stupefied" by the development of the latent image by pyrogallol acid. Later, he made important contributions to this art, including a work on color photography.

At 17 Cajal began the study of osteology. Bones for study were procured by father and son after dark from the local cemetery. Great was his parent's amazement and joy when his child manifested interest of high degree, a proficiency in drawing pictures of bones from all angles, and an astounding memory for anatomic details. For the ensuing

* Address of Section Chairman. Read before the Section on Neuropsychiatry of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

three years Cajal dissected in Zaragoza. During that period his attitude toward anatomy may be gleaned from his statement: "Henceforth, I saw in the cadaver, not death, with its train of gloomy suggestions, but the marvelous workmanship of it." At the end of his second year in medicine he was granted an appointment as assistant in dissection; and this enabled him to earn fees by giving lessons in practical anatomy. Subsequently, and attentively, he studied chiefly anatomy and physiology, while to the remaining subjects of the curriculum he devoted only enough effort to obtain passing grades. In June, 1873, at 21 years of age, he was granted the title *Licentiate in Medicine*.

Adhering to a plan of always having avocations, Cajal, at different times during his medical training, developed graphomania, a mania for philosophy as well as for gymnastics. Two hours of application daily to a series of exercises, some of which he improvised, served to make him a champion strong man. Of himself at that time he says: "When I walked, I showed that inelegance and rhythmic strut characteristic of the sideshow Hercules."

Caught in the military draft of Castelar, Cajal, on obtaining his medical degree, became an assistant physician in the army. In 1874 he was promoted to a captaincy and ordered to Cuba. Though he resisted the "four great vices of officialdom, tobacco, gin, gambling and women," he contracted malaria, which was followed by dysentery. After great hardship, suffering and disillusionment, he returned home at about 24 years of age.

TEACHING CAREER BEGINS

Showing little interest in clinical medicine, he was urged to go into teaching. During 1876 he studied anatomy and embryology, and assisted his father at the hospital. On April 28, 1877, he was made auxiliary professor on the Faculty of Medicine at Zaragoza. Further aspirations toward a teaching career obliged him to take an academic degree. At the time he took his first examination in Madrid he had never seen histologic preparations made, "nor was I capable," he said, "of carrying out the simplest microscopic examination."

At Zaragoza he managed to secure the use of the only microscope in the university, property of the department of physics. His love of microscopy was inflamed by "the amazing spectacle of the circulation of the blood." Later he purchased a microscope on the installment plan and set up a laboratory for microtechnique. He started working alone with the aid of the French versions of Henle's "General Anatomy" and Frey's "Histology and Histochemistry." He failed to pass the examinations for the chair of descriptive and general anatomy at Zaragoza, for lack of experience in speaking "before select and critical audiences" and because of "absence of pedantry." For lack of influence, he failed to obtain a similar chair at Granada. Following examination in 1879 he was appointed Director of Anatomical Museums in the Faculty of Medicine at Zaragoza, and afterward he wrote that he "owed eternal gratitude" to this appointment, which saved him from becoming a practicing physician.

While playing chess (at which he excelled), Cajal, one day in 1878, developed a pulmonary hemorrhage. His father made a diagnosis of pulmonary tuberculosis, and prescribed rest in bed, and for a time the son was very depressed. During his convalescence, he diverted himself with photography, became a manufacturer of gelatin bromide plates, and improved certain current formulas. And, against the advice of his family and friends, in 1879 he married a charming woman, whose psychology complemented his own.

LABORATORY INVESTIGATIONS

While director of the Anatomical Museum in Zaragoza, Cajal set up a laboratory for teaching and investigative work. His first publication was brought out in 1880. About that time he procured the leading current monographs on histology and devoted himself to studies of nervous tissue, using staining methods dependent upon silver nitrate. In 1883 he won the chair of anatomy at Valencia; and there, in 1885, he was temporarily diverted into bacteriology by the cholera epidemic. In appreciation of his work, the provincial government presented him with a Zeiss microscope. He was astonished to observe that microscopic demonstrations aroused no interest in his colleagues, who spent their time arguing and describing healthy and diseased cells without trying to see them. About that time L. Simarro, a psychiatrist and neurologist of Valencia, showed Cajal the first good preparations of nervous tissue made by Golgi's method. In 1887 Cajal himself began making Golgi preparations on a large scale.

NERVE TISSUE STUDIES

Appointed that year to the chair of anatomy at Barcelona, he joined a circle at a café where he met writers, politicians and men of affairs. His enthusiasm for original investigation and the intellectual renaissance of Spain increased. By 1888 Cajal was able to formulate the laws governing the morphology and connections of the nerve cells in the gray matter; and he showed that the collateral and terminal ramifications of every axis cylinder end in the gray matter by free arborizations which are applied very closely to the bodies and the dendrites of the nerve cells. Demonstration of these facts enabled him to state that the cell bodies and their processes enter into the chain of conduction, contrary to the opinion of Golgi, who felt these parts of the cells perform only a nutritive rôle. The view that the nerve impulse is transmitted by contact became inescapable since the continuity of substance between cell and cell had been excluded.

SILVER STAINS

Cajal then turned to the ontogenetic or embryological method, using silver stains on tissues that had not yet become myelinated. By this method cells were made to stand out complete in each section, and constant results, impossible of attainment in adult forms, became the rule. After his success with the retina and cerebellum, Cajal turned to the spinal cord, and eventually all portions of the nervous system were subjected to critical scrutiny.

Before the Anatomical Society of Germany, which met at Berlin in October, 1889, Cajal demonstrated his preparations. They were viewed with skepticism, until Kölliker became so impressed as to turn the tide in his favor. At Berlin, too, he had the opportunity to make the acquaintance of the leaders of anatomical thought in Europe. On his return trip he met Krause, who had befriended him years previously by publishing several of his communications.

HIS CAPACITY FOR WORK

By the time he arrived home he had become impressed with the lack of equipment even in German centers of research, and had decided that "cultural superiority depends not on the educational institutions, but upon the men." Finding "the emotion of discovery so sweet and comforting, so gently caressing to vanity and pride," he began working from 9 a. m. until midnight. His outstanding contribution of 1890 was the establishment of the genetic unity of the nerve fibers and of the dendrites. He described, for the first time, the growth-cone, a concentration of protoplasm of conical form endowed with ameboid movements at the end of the axons of chicks three days old. By 1891 he had brought out the theory of dynamic polarization. "The transmission of the nervous impulse is always from the dendritic branches and the cell body to the axon or functional process."

In 1897, realizing that the cell body does not always take part in the conduction of the nerve, he enunciated the theory of axipetal polarization, a modification of dynamic polarization. This assumes that the cell body and the dendrites transmit waves of nervous excitation toward the axon and inversely that the axon or axis cylinder carries the impulses received by the body or dendrites toward the terminal arborizations of the nerve fiber.

In April, 1892, at the age of 40 years, Cajal became Professor of Normal Histology and Pathological Anatomy at Madrid. At first he frequented the tertulia, or social club, in the Café de Levante, composed of army surgeons he had known in Cuba. He soon tired of their uninteresting conversation, however, and joined that of the Café Suizo. From these associations arose his famous "Charlas De Café." Meanwhile research was continued with unabated energy.

ADDRESSES ABROAD

In February, 1894, Cajal was tendered an invitation to deliver the Croonian Lecture of the Royal Society of London. He was moved to admiration of the great English institutions of learning, which he felt were admirably organized for the production of men, but not for the formation of scholars. In the same year, before the International Medical Congress at Rome, he discussed the morphology of the nerve cell. In this discussion he brought out the conclusion that intellectual power depends not on the size or number of the cerebral neurones, but on the richness of their connection processes; or, in other words, on the complexity of the association pathways to short and long distances.

Cajal was greatly depressed by the Spanish-American War, and when Clark University, at its decennial celebration in 1899, invited him to give three lectures on his work he was "surprised and perplexed." Yielding to the unanimous opinion of the government, the political press and his friends, however, he accepted the invitation and crossed the ocean to the United States. Here, almost suffocated by the heat of New York and Worcester in June and July, he was moved, by the sight of men doing manual labor in the direct rays of the sun, to exclaim: "Oh, the steely fiber of the Anglo-Saxon race." Harvard University roused his sincere admiration. On this trip, he met and enjoyed the company of Adolf Meyer.

REWARDS AND PRIZES

The International Medical Congress, which assembled in Paris in 1900, awarded him the international or Moscow award of 6,000 francs for the most important medical or biological work published in the triennium between meetings, and thenceforth honors were showered on Cajal. The Spanish government appropriated 80,000 pesetas for an institute of scientific research, which was opened under the name, Laboratorio de Investigaciones Biológicas. As director, Cajal was offered an annual salary of 10,000 pesetas, which, in his modesty, he refused, considering it excessive.

In 1904 Cajal completed his great work in three volumes, *Histologia del Sistema Nervioso del Hombre y de los Vertebrados*, containing 1,800 pages and 887 original illustrations. In 1905 he was awarded the Helmholtz gold medal by the Royal Academy of Sciences of Berlin. In October, 1906, with Golgi he received the Nobel prize for medicine.

The discovery, in 1913, of the gold sublimate method of staining neuroglia enabled Cajal to describe fibrous and protoplasmic types in detail, as well as a third element without processes. A two-volume work on degeneration and regeneration was completed, and printed by subscriptions of the Spanish physicians of the Argentine. Cajal was saddened by the outbreak in 1914 of the World or European War; for, unable to communicate with foreign laboratories, he felt as if he were carrying on a scientific monologue. By the end of the war most of the scientists acquainted with Spanish work had passed away. At 70 he retired from administrative duties, and on October 18, 1934, he died.

In the decade after the World War, Cajal saw erected the El Instituto Cajal, which came too late for his own work, but provided adequate quarters for his disciples. Of them, the best known in America is Pio del Río Hortego, who evolved a method for staining the "third element" of neuroglia.

Cajal stands preëminent among Spanish scientists. Great in neurohistology, he became an authority on color photography, an artist of merit and a leader in the renaissance of fine arts which sprang up before the recent Spanish civil war.

1930 Wilshire Boulevard.

THE CURE OF GONORRHEA: AN IMMUNOLOGIC PROBLEM*

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Discussion by Arno G. Folte, M.D., San Francisco;
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IT was Agur, the son of Jakeh in Proverbs, who said: "There be three things too wonderful for me, yea, four which I know not," and then proceeded with his list. Now any clinician or student of medicine might easily put to shame Agur's modest list with his own ignorance, and likely high up in any such compilation would stand the way of the gonococcus in the urethra. For, despite the recent and extraordinary advancement of our knowledge with regard to gonorrhea, there still remain many factors, especially contingent upon its cure, "which are too wonderful for us, yea, which we know not."

HOW? WHY? FOR WHAT REASON?

However, the physician of today is no longer content to accept the cure of gonorrhea as the inscrutable mystery of the past, but seeks rather to ascertain the how? why? for what reason? of it all. For upon the correct answer to these questions hinges the genesis of more efficient therapy with its intelligent application. This quest for the proper answer is somewhat simplified by the tabulation of certain basic concepts at the outset:

1. An attack of gonorrhea represents a protean struggle between two hostile and oppugnant forces. On one side a living organism—the gonococcus—seeks establishment in the urethral tissue and, if successful, will be manifested by local tissue damage or necrosis. On the other the body's defense mechanism attempts to localize the invasion after initial fixation has occurred, which is manifested by inflammation contingent upon the local tissue injury.

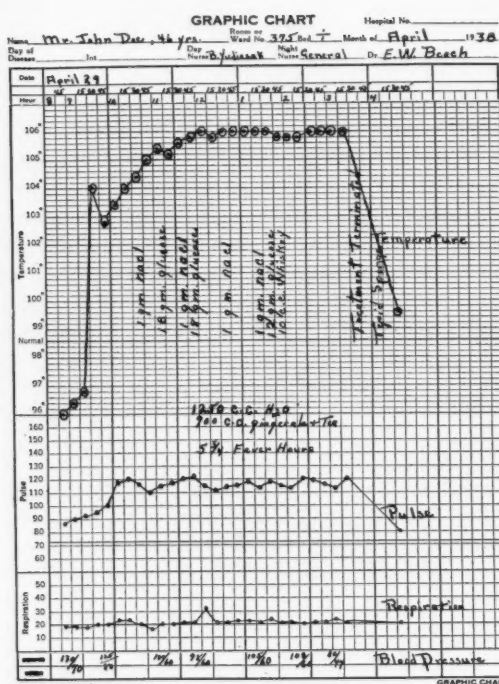
2. Tissue damage—the epitasis of this drama—is essential to the biologic welfare of the gonococcus, since it supplies nutritional prerequisites. It is also beneficial to the body, since it leads to mobilization of the defense mosaic.

3. This struggle is conditioned in a general way by the virility of the organism (*i. e.*, the degree of tissue damage), the susceptibility of the tissue involved (*i. e.*, tissue anatomy), and the efficacy of the body's defense mechanism (*i. e.*, inflammation and healing).

4. Apparently when the defense mechanism is triumphant (*i. e.*, when complete tissue immunity accrues) the disease is cured.

5. The defense mosaic is amplified and the advent of complete immunity speeded by adroitly undermining the invader's fortunes.

After all, the physician who intelligently treats gonorrhea merely crusades in behalf of the defense mechanism, strives to limit the invader's depredation, and thus hastens the development of com-



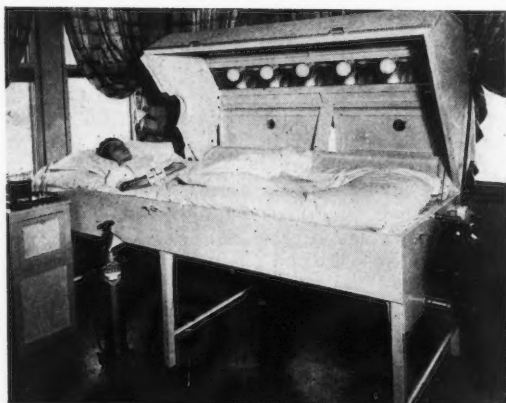


Fig. 2.—Cabinet opened. Patient rests upon feather tick over mattress. Note the five 250-watt CX Mazda bulbs in compartment above protected by wire mesh. Note Cutler-Hammer rheostat at end of cabinet to regulate current to lights.

in their biologic demands that life and growth are possible only in certain tissues of the body, and only under certain physiological conditions. Such an organism is the gonococcus, which has become a strict parasite by reason of its close association with mankind from time immemorial. Moreover, for the same reason a condition approaching symbiosis has evolved. In other words, so dependent has the gonococcus become upon the host for its complex and preformed growth requirements that it has entirely lost the necessary power to synthesize its own from more elemental pabulum. As a heterotrophic organism, therefore, life outside the body is quite impossible save on "enriched" media (blood or tissue juices added) and under most exacting conditions. Only the viruses, which will not grow at all upon artificial media, are more fastidious as to biologic requirements than the gonococcus.

The highly selective nature of this parasite—the gonococcus—is affirmed by its preference for columnar epithelium and transitional epithelium with a physiologically nondistensible and closely attached subjacent strata. Moreover, constant association with the isothermic host has established the optimum temperature for this organism at or near 98.6 degrees Fahrenheit. Clinical observations in the course of intercurrent febrile maladies have long attested its thermolabile nature. It is cultured with difficulty from febrile patients, according to Neisser and Scholtz.¹ It will not grow on culture media at temperatures above 100.4 degrees Fahrenheit.

It would appear, therefore, that the gonococcus is quite vulnerable from the standpoint of heat or induced fever (remembering fever as the body's universal response to infection) and especially since a condition of near symbiosis has been established so that this infection is almost afebrile or attended usually by a minimum of temperature elevation. Much scientific work by Carpenter, Boak, Mucci, Warren² and others has been done to determine accurately the thermal death point of different strains of the gonococcus *in vitro*. About 99 per cent are destroyed at 105.8 degrees Fahrenheit

within four to five hours. Although conditions *in vitro* and *in vivo* are by no means consonant, this point in many instances may be safely exceeded without injury to the body with nicely controlled artificial fever apparatus. Lower ranges of fever for briefer periods of time apparently attenuate the organism or inhibit its growth in the tissues.

Incidental to countless sorties upon the favorable soil of the host, the gonococcus has developed a protective mechanism of its own. Exact knowledge anent the toxin, elaborated by the gonococcus, poses the profession as yet. It has long been thought to be an endotoxin, *i. e.*, an insoluble principle tightly bound to the protoplasm of the organism. If this be true, then the antibody contribution to the chain of immunologic events is overshadowed by local tissue developments and phagocytic activity. On the other hand, Ferry's work³ on both the gonococcus and meningococcus indicates the presence of a soluble principle, *i. e.*, an extracellular toxin capable of sponsoring antitoxin production.

Sulphanilamide.—Sulphanilamide—a forerunner in that intricate and as yet little-understood field of chemotherapy—has established clinical value against the hemolytic streptococcus,⁴ the meningococcus,⁵ and the gonococcus.⁶ Since these organisms have much in common (family Coccaceae) and all have exotoxins, it seems logical to assume identical *modus operandi* for the drug in each instance. Recent investigation of the action of sulphanilamid by Osgood and Brownlee⁷ (limited to beta hemolytic streptococcus) indicated that this drug neither promoted phagocytosis *per se* nor assailed the organism directly, but behaved rather as an antitoxin to neutralize the toxin.

The efficacy of sulphanilamide in gonorrhea apparently depends upon (1) the proper concentration (above 1-100,000) of the free form (para-amino-benzene-sulfonamid) in the body fluids, and (2) its continuous maintenance for lengthy periods so as to completely disarm the gonococcus and thus prevent tissue damage. For without tissue damage the parasite's nutritional demands cannot be satisfied, and hence the life cycle is interrupted. Clinical fulfillment of the above postulates is arduous because the metabolic endpoint for sulphanilamid varies preponderantly with the individual—an admixture of the free form, which is useful, and the acetyl form, which is both inert therapeutically and somatically toxic in quantities—and because of the rapid elimination rate for the drug (three- to four-hour interval). Haphazard administration of sulphanilamid is, therefore, under the circumstances, not only fatuous but positively dangerous, since any drug (and particularly with the benzene ring) operating in that narrow and shadowy zone between the living protoplasm of the body cells and the living bacterial protoplasm (with supposedly low toxicity for the former, but selective affinity for the latter or its vital process) is liable to vitiation, specific deviation or even reverse application under modified or unusual physiologic conditions. Hence, vigilance anent sulphanilamide is necessary, pending more comprehensive pharmacological knowledge.

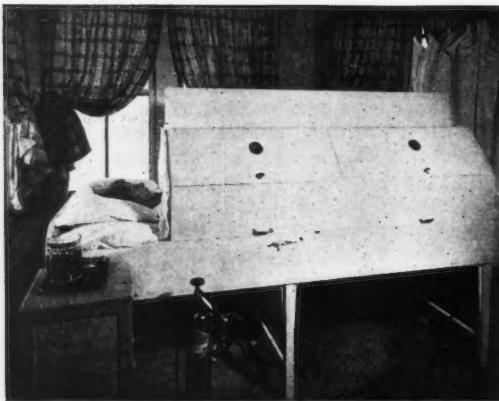


Fig. 3.—Homemade celotex cabinet molded after the original ideas of S. L. Warren. Note glass apertures for view of interior. Note terry cloth drapery about neck to seal interior. Note large panels to facilitate opening and care of patient.

THE DEFENSE MECHANISM

There are presently three interrelated and complementary parts to the mosaic of the defense mechanism, to wit: (1) the humoral attribute, *i. e.*, the antibodies; (2) the cellular attribute, *i. e.*, the fixed and mobile phagocytes; and (3) the local tissue attribute. Clinically, the rôle of local tissue immunity (3) is the most important in gonorrhea, yet, unfortunately, it is the least understood of all these attributes. Knowledge anent (1) and (2) is now fairly extensive, but its completion also must await better understanding of (3). Certain concepts, as outlined by R. Kahn⁸ in his book on "Tissue Immunity," are followed herein.

The Incubation Period.—Although the columnar epithelium is most susceptible to the gonococcus, a relative degree of immunity must exist else no fixation of the organism nor its antigen could occur, and hence no tissue damage would result. The incubation period represents the time required for anchoring of the organism and hence for tissue damage to accrue.

Subsequent Possibilities.—With the advent of tissue damage (which, physiologically, is the exact opposite of inflammation), all defense attributes are stimulated, and particularly (1) and (2), so that an inflammatory bulwark (comprising accumulated fluids, phagocytes, bacteriolytic, and proteolytic substances) is interposed between the invader and the deeper tissues to prevent extension of the process. Great virulence of the organism—slow tissue response or temporary tissue disimmunity—may permit the gonococcus to enter the deeper tissues and the blood stream. The struggle now goes forward with either the host or parasite currently triumphant from time to time in this preformed inflammatory box. Destruction of the organism may occur rapidly and particularly if the organism can be locked tightly in the tissues. If the organism continues in ascendancy with the production of more tissue necrosis, an abscess results with evacuation of the contents and often into the urethra. Since every shade of tempo is possible, the organisms may continue viable for lengthy periods

within these inflammatory ramifications, causing little or no destruction of tissue. Eventually healing is consummated with restoration of function, either partial or complete.

In due course when all the tissues (local—antibodies and phagocytes) have developed selective affinity for the antigen, complete immunity is established. Undoubtedly, the specific adaptation of the tissues, fluids, and phagocytes alike to the antigen is fundamentally of the same general nature although entirely dissimilar as to manifestations.

THE STRUGGLE

The intimate details of this struggle, which are presently more philosophical than factual, constitute no ensemble. Only fragmentary data from several sources are available, and yet some correlation must be attempted despite existent hiatuses. Knowledge of colloidal phenomena, p^H values and biocatalysts is helpful. New horizons prevail anent substrates, growth factor prerequisites, oxidation-reduction potentials, bacterial chemosynthesis, respiration, and metabolism generally.⁹ Yet these but accentuate the absence of other essential pieces to this jigsaw puzzle.

The antigen elaborated by the gonococcus is by nature a lyophilic colloid and when combined through adsorption with the tissues causes destruction of the latter. By the secretion of exo-cellular enzymes the gonococcus reduces this complex, broken-down tissue to simpler and more diffusible combinations. In turn, this more diffusible product is acted upon by endo-enzymes and assimilated by the organism to supply energy in its life cycle. That accumulated catabolic end-products or "respiration" by-products act as "pressor" substances to inhibit the growth of the organism seems plausible and in accord with the biologic behavior of other microorganisms. Likely this explains the clinical observation that structures with poor but intermittent drainage are so adamant to treatment.

The mechanism for antibody production in response to the antigen is vague at present. Whether the antibodies are new substances entirely or modified globulin fractions of the normal blood serum with the antigen "imprint" awaits discovery. Their specificity likely has to do with stereochemical spacing or formation of a template on the newly arranged protein.

CLINICAL APPLICATION

All expedients entering into the candelabrum of intelligent therapy have common objectivity and are theoretically complementary. These may be divided arbitrarily into (1) expedients which primarily amplify the defense mechanism; (2) expedients which primarily assail the parasite; and (3) expedients primarily equipollent and which operate simultaneously.

Supplementation of the Defense Mosaic.—The clinician comes to realize that while cure may depend upon the body's mechanism for parenteral digestion or destruction of the gonococcus and its antigenic agent, this is essentially a slow-moving, time-consuming and delicately balanced process. Moreover, while it is efficient when the offender is

a prisoner (incarcerated in the tissues) or when the organism has complete freedom (good drainage), it is often inadequate or uncertain when the parasite is on parole (intermittent drainage) or when complications arise. Since, in light of our present knowledge this defense mechanism lacks completeness, the clinician is often reluctant to undertake direct augmentation lest he inadvertently champion the parasite's fortunes at the expense of the host. For this reason, and despite theoretical advantages, the practical physician usually avoids injections of specific or nonspecific proteins or the intradermal use of the filtrate "antivirus" or other antigen-like substances in gonorrhea. The filtrate especially is a two-edged sword and as such has potentialities for harm—chiefly immunologic "fatigue" and disimmunity production.

Direct Attack Upon the Gonococcus.—Manifestly, once tissue damage develops and the organism is established, it is questionable whether any local injection can even contact the parasite, let alone destroy the latter. The clinical value of irrigations is likely contingent upon better drainage. Tissue damage is a biologic necessity for the gonococcus since, as a specialist, it has replaced plebeian tastes with a capricious appetite; hence any expedient which precludes or minimizes tissue damage is most valuable. It is, therefore, beholden upon the physician to prevent tissue damage (hence the strategy of acriflavin attack in the incubation period) or to limit the degree (hence to avoid strong injections, trauma, alcohol, coitus, etc.) once it accrues. Sulphanilamide appears especially apt in this respect, since if the toxin is neutralized, tissue destruction is impossible.

An Equipotential Modality.—The fever syndrome depends upon extraordinary acceleration of vital body activity, and the greater the physiologic exaltation the higher the temperature. The theory of induced fever is predicated upon the corollary: the higher the induced temperature or "forced draft" (within certain limits) the greater the enhancement of physiologic activity. Since each body cell has inherently a relative quota of physiologic immunity, it appears that the latter should, therefore, be augmented and somewhat in proportion to the degree of hyperthermia. Induced fever seems to stimulate the defense mechanism¹⁰ in gonorrhea and also to assail the gonococcus simultaneously. We have proved the clinical value of induced fever as a supplement to other forms of therapy in the treatment of gonorrhea over a long period. Our objective with this modality has been to strengthen or fortify certain weak or inadequate links in the chain of immunologic events leading to the goal of complete tissue immunity, and also to sponsor a biologic environment inimical to the parasite's welfare. Accordingly we have focused our attention upon the patient and his tolerance—not the organism and its precise lethal point. If well tolerated, we endeavor, for four to five hours, to maintain the temperature steadfastly at 105.5 to 106 degrees Fahrenheit, taken rectally at ten-minute intervals and in consonance with pulse and blood pressure determination. In this way and by repetition if necessary, we have obtained gratifying results with

a minimum of danger. Induced fever appears most useful in complicated phases of the disease, particularly so-called gonorrheal arthritis and with resistant strains of the organism. After much preliminary experimentation with high-mettled machines for short-wave production, we now use a simple inexpensive home-made celotex cabinet, modeled after the original ideas of Stafford Warren¹¹ and equipped with five 250 watt CX Mazda bulbs for direct radiation. This is both practical and controllable.

IN CONCLUSION

1. About a century ago Philippe Ricord, with his famous *bon mot*, "We know when clap begins, but God alone knows when it ends," apparently crystallized the truth in that the cure of gonorrhea is always contingent upon and incident to complete tissue immunity.

2. Since our knowledge of this mechanism—which involves alike the antibodies, phagocytes, and local tissues—is still incomplete, the rationale of attack as to the biology of the gonococcus, which is better understood and which complements the defense forces, is apparent.

3. The two innovative expedients for this purpose (currently sulphanilamide and induced fever) while not exactly comparable apparently operate in much the same manner. Of the two, induced fever is the more certain and, if intelligently used, more closely approaches the ideal form of therapy.

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DISCUSSION

ARNO G. FOLTE, M.D. (1063 Flood Building, San Francisco).—Doctor Beach has just presented to us a very complete study of the immunologic aspects involved in the treatment and cure of gonorrhea. The vital question that comes to my mind is how we are going to profit from an understanding of these principles, which should make us into better clinicians. Most of these immunologic precepts are not new, and hold true in the treatment of any acute, pyogenic infection. It has often been repeated that gonorrhea is a self-limited disease, but this expression implies that we should attack gonorrhea by maintaining a strictly hands-off policy, and allow the defensive mechanism to operate and cure the patient. Perhaps this is what happens in the end; but none of us feel so impotent that we don't believe we can assist in this immunologic process in a helpful way. We know by experience that tissue immunity is a sensitive process, to be hindered, or enhanced, during treatment, according to the ability of the physician.

But whatever method of treatment we pursue it must be with an understanding of the three fundamentals which Doctor Beach has stressed, *i. e.*, first, a knowledge of the biologic life of the gonococcus; and, secondly, tissue defense mechanism. By tissue defense mechanism, we mean that a cure depends mainly on local tissue immunity, aided perhaps by the development of humoral antibodies, if Ferry's work on the exotoxin of the gonococcus is substantiated. Thirdly, tissue anatomy. This latter, because the gonococcus is a selective organism, and solely concerned with columnar-cell surfaces, such as are found in the anterior urethra and glands connected to it, and those transitional cell surfaces that are firmly attached to their sub-adjacent structures, as in the posterior urethra and trigone.

Inasmuch as tissue immunity is a variable quality in different patients, and not predictable in regard to the time element, and since most of our attempts to speed it up have frequently ended disastrously to the patient, it is encouraging to note that with recent advances in chemotherapy and fever therapy, a step forward seems accomplished.

I might add, that whatever method of treatment we follow, be it with injections, irrigations, filtrates, foreign proteins, fever, and the like, these must be used by keeping ever in mind the immunologic picture of the disease. Local tissue immunity is sometimes fleeting and cannot be measured by any sort of gauge or meter; but by careful and frequent observation much of this process can be estimated, and, with experience on the part of the physician, be aided.

I fully agree with Doctor Beach's conclusions that, with the advent of sulfanilamide and induced fever therapy, we approach a more rational attack on the disease, and the modus operandi of which fits in well with our ideas of the defense mechanism of the human host.

✱

JOHN G. CHEETHAM, M.D. (538 Medical Arts Building, Portland, Oregon).—The essence of Doctor Beach's paper is to the effect that cure of gonorrhea is always contingent upon and incident to complete tissue immunity. The outlined defense mechanism which contributes toward this end is concerned, separately and in combination, with antibodies, phagocytes, fixed and mobile; and with local tissue attributes.

Therapeutics is concerned with those expedients, as vaccine, which amplify the defense mechanism; with those expedients as local therapy and sulfanilamide which may primarily assail the parasite; and with those expedients as fever therapy which in dual manner contribute both to immunologic defense and have direct action on the invading organisms.

Let us consider briefly the four principal agencies in the treatment of gonorrhea. By the use of local therapy we endeavor to accomplish adequate drainage, to build up a certain degree of local immunity, and to achieve a certain amount of germicidal action. The advent of newer reme-

dies should not allow us to forget and discard this method of treatment which in the past has fulfilled the therapeutic requirements of a multitude of cases and which, when used in conjunction with these newer remedies, gives greater effectiveness than can be acquired by the use of such agencies alone.

With regard to the second agency, we agree that the immunological balance in gonorrhea is so delicate that, while vaccines and filtrates may be theoretically of advantage, yet both qualitative and quantitative factors in dosage and response are so variable that immunity defenses may be overthrown rather than built up. We do not ordinarily employ their use.

The third agency, artificial fever therapy, exhibits a definite thermolabile effect, but its preponderant activity lies in the formation and mobilization of immune bodies. The leukocytoses developed plays an important part in phagocytosis. In cases resistant to other medication, and in those patients who can tolerate it, hyperpyrexia is a valuable aid in the treatment of gonorrhea.

The last agent, sulfanilamide, has a bacteriostatic and bacteriolytic effect of a nature different from but supplementary to hyperpyrexia. Its chief effect is probably in the neutralization of bacterial toxins, thereby allowing the bactericidal properties of the blood serum and of the phagocytes greater activity. Used alone, while of immense value, this drug has not furnished the remarkable results that early reports in the literature indicated for it.

Since the attributes of these agencies vary in kind and degree, it would seem logical that a combination of two or more would be more effective than any one alone.

Superior results are being obtained with the use of local therapy and sulfanilamide combined—probably 75 per cent of cures within a time limit of six weeks.

Even more successful are the results from the dual use of sulfanilamid and artificial fever therapy. It is worthy of note that with this method the dose of the drug need not be so large nor the fever maintained at so high a level as when those modalities are used alone. When to this combination we add local therapy we feel that we have amassed together all of the essential elements in the treatment of gonorrhea; and therapy with this triphasic method is at the optimum. This triphasic treatment is not recommended as a routine, but is indicated for those cases which have failed of cure by other methods and for those patients in whom a quick and experient cure is necessary.

Of less import than the fact that by this method we have been able to secure 90 per cent cures within a period of two weeks' time—is the evidence that definite studies along the lines of immunity—such as today presented by Doctor Beach—are going on and from these the knowledge may come whereby, if we cannot hope for complete eradication of this disease, yet we may anticipate an early improvement in its control.

✱

JAY J. CRANE, M.D. (1921 Wilshire Boulevard, Los Angeles).—Doctor Beach's timely paper was received with favorable comments at the time it was given before the Section on Urology. His comprehensive explanation of the rational theories pertaining to the ultimate cure of gonorrhea were very enlightening. No statements were made relative to certain drugs or methods which had not been well tried in Doctor Beach's private practice, and his conclusions were based upon carefully made observations with a full knowledge of what others had been doing and what they thought.

Sulfanilamide, more than fever therapy, has given to the practitioner an effective drug which, in a large measure, can be considered as a specific against gonorrhea, thereby greatly shortening the course of the disease in many patients.

I am very glad that Doctor Beach's paper is published in a journal read largely by general practitioners, so that they may have a more clear understanding as to what part this drug plays in helping to eradicate this disease. Many think of sulfanilamide as a sterilizing agent, but it undoubtedly is not, as Doctor Beach has pointed out. One is apt to believe also, from the extensive use of the drug, that it is not very toxic. This thought is also wrong, for there is practically no one that takes the drug that is

entirely free of toxic symptoms. Nevertheless, its discovery has been a great step forward in the treatment of gonorrhea and its use should be cautiously continued.

Fever therapy, more difficult of administration than sulfanilamide, is undoubtedly very useful, but it has never become popular with the general practitioner because of the equipment required, and the supervision necessary in carrying out treatments. I believe that had sulfanilamide not been discovered when it was, fever therapy would be used more extensively today. Of the two methods, I believe the prescribing of sulfanilamide is less dangerous and accomplishes more.

The determination of cure is still difficult and should be carefully checked, as in the past, by all of our old methods, *i. e.*, prostatic massages, sounds, smears, and close observation over a period of several months, after a complete absence of all symptoms.

HERPES ZOSTER: TREATMENT WITH THIAMIN CHLORID

By MAX J. GOODMAN, M.D.
Eureka

DISCUSSION by J. F. Walsh, M.D., Eureka; Orris R. Myers, M.D., Eureka; Arne Ely Ingels, M.D., San Francisco.

THE pathology of herpes zoster is essentially an inflammation of the posterior root ganglia, causing a degeneration of some of the posterior root and of the peripheral nerve fibers. The skin lesions are erythematous patches, which soon change to vesicles and are found along the distribution of the affected nerve or nerves.

The initial symptom of this disease and one which, along with the dermatosis, presents the most prominent feature, is pain. This is, of course, due to the inflammatory process in the posterior root, but may also be attributed to the degenerative process occurring in the peripheral nerve tract. It may be likened to the pain in thrombo-angiitis obliterans, which is due to the nerve degeneration accompanying the circulatory disturbance (ischemic neuritis). In this latter condition it is a common belief that the pain persists until the process of nerve degeneration has been completed.

Herpes zoster may be divided into two etiologic types: (1) The symptomatic, which may be due to syphilis, spinal-cord tumor, vertebral disease, and arsenic poisoning, and (2) the essential type, which may come in epidemics, and is probably due to a virus. The treatment in the symptomatic type is obvious if, and when, the diagnosis is made. However, in the essential type, the chief treatment has consisted of alleviation of pain with salicylates, and the local care of the lesions. We have used pituitrin with questionable results.

Since the beneficial influence of vitamin B₁ or thiamin chlorid in neuritis, and its prevention of certain degenerative nerve changes is acknowledged; and since it has been established that the prominent feature in herpes zoster is a neuritis with degenerative changes, we had occasion to treat five such cases with subcutaneous administration of thiamin chlorid with gratifying results. These are herewith submitted:

REPORT OF CASES

CASE 1.—G. W., male, age 49. Occupation, woodsman. Appeared on October 27, 1938, complaining of severe pain

in right hip and right chest of about five days' duration. Two days prior, there appeared a rash on the right side of his chest. Past history included an injury to his lumbar region in April, 1937, when he fell a distance of twelve feet. There were no fractures at that time, but a period of five months was required before he was released from treatment. Since then he has enjoyed good health. Examination at this time was essentially negative, except for herpes zoster along the course of the twelfth dorsal nerve. Wassermann was negative. At this first visit the patient was treated by cleansing the lesions¹, and sodium salicylate was prescribed. He returned on October 31, 1938, complaining that the pain was only slightly relieved by salicylates. At this time he was given thiamin chlorid, 3000 units, hypodermically, and again on November 1, 1938. He returned on November 3, 1938, stating that for the first since the onset of his condition he had had a good night's sleep, and that at present he was entirely free from pain. He was again given a 3000-unit dose of thiamin chlorid, and this was repeated on November 5, 1938. At this last visit his lesions showed definite signs of healing and he was entirely free from pain.

CASE 2.—R. G., age 48, millwright. Admitted on November 17, 1938, complaining of a rash on left side of his chest, with severe pain in that area. The rash had appeared the day before. His condition was a herpes zoster along distribution of the eighth dorsal nerve on the left. Wassermann was negative. Examination otherwise was essentially negative. He was treated with thiamin chlorid, 3000 units hypodermically, on November 17, 18, 19, 21, 22, and 23. His pain had disappeared on the 19th, after two doses, and he was discharged from treatment with the lesions almost completely healed on November 23, 1938.

CASE 3.—G. S., male, age 22, mill worker. Came in on November 23, 1938, complaining of a rash in the right chest area, of three days' duration. Since the onset, there was a slight pain in his back with severe burning in the herpetic lesions. Examination was essentially negative, except for herpes zoster—distribution along the tenth and eleventh dorsal nerves on the right. Wassermann was negative. He was given vitamin B₁ 3000 units by hypodermic, on the following dates: November 23, 25, 26, 28, 30, and on December 2 and 5. The pain was improved slightly on November 26, and had entirely disappeared on November 28. The lesions showed some healing on November 30, and were completely healed on December 7, at which time the patient was discharged from treatment.

CASE 4.—I. W., female, age 15, student, appeared in the clinic on December 20, 1938, complaining of "shooting" pains in the left shoulder for the past six days. The pain was aggravated by motion. On December 17, 1938, she began to have itching on the shoulder and on the left arm. On December 19 she noticed a rash on the inner aspect of the arm, on the left breast, and over the left scapula. There was some pain in the left wrist. Examination revealed herpes zoster of the areas mentioned. She was given thiamin chlorid, 3000 units hypodermically, on the following dates: December 20, 21, 22, 23, 24, and 27. Progress was as follows: There was marked improvement from pain on December 22, and she was able to move her shoulder without discomfort. There were no additional lesions present. On December 23 she complained of having had a few spasms of mild pain in the shoulder early in the morning, but when seen at the office these had entirely cleared. On December 24 she felt practically normal again, and the lesions were drying. At the last visit, on December 27, the patient was apparently cured. The lesions were gone, except for small, dry, erythematous patches in their place.

CASE 5.—C. V. J., male, age 71, retired, appeared on December 17, 1938, complaining of pain in the right chest for the past two weeks. For two days prior to admission he had noticed an erythematous rash on the right chest, extending along the distribution of the fifth and sixth dorsal

¹ Note: The lesions in all five cases were painted daily with tincture of merthiolate in collodion.

nerves. There was pain in the back in the area of the fifth, sixth, and seventh dorsal vertebrae.

Past History.—The patient stated that he had had "shingles" on that same side twelve years ago. In October, 1938, he had consulted a physician for what appears to have been coronary attacks, but since then he had no trouble until the present illness. Examination revealed a senile individual, barrel-chested, with a vesicular rash on the right chest in the distribution of the fifth and sixth dorsal nerves. The rash was much milder in appearance than the other cases of herpes zoster in our series, but its distribution and the attending pain precluded any other diagnosis. Physical examination otherwise was essentially negative, except for a mild bronchitis. Wassermann was negative. He was given thiamin chlorid, 3000 units hypodermically, on December 17, 19, 20, 21, 22, 24, 27, 29, and 31. On December 19 there was marked improvement in pain, but the number and severity of the lesions were increased. On December 27 he stated that there was still some pain present in the anterior chest wall on the right, but the lesions were almost completely healed. The patient was last seen on January 4, 1939, at which time the lesions were entirely healed, except for two or three small scabs. The pain had not recurred since the last visit.

COMMENT

In comparing these cases of herpes zoster treated with thiamin chlorid with similar cases in our experience treated by local applications and salicylates, it appears that the former is a logical and more satisfactory means of combating this condition. The pain is relieved more promptly; the lesions clear up at an earlier date; and the total disability time is notably decreased. In one of our patients (Case 5), a longer period of treatment was required. The age of the patient may have been a factor. Five patients are hardly sufficient evidence from which to draw conclusions, but the results we have obtained indicate that further investigation in this field is warranted.

525 Seventh Street.

DISCUSSION

J. F. WALSH, M. D. (Gross Building, Eureka).—Thiamin chlorid seems to be an effective means of therapy in herpes zoster. I have had three patients whom I treated in this manner, using 10 milligrams subcutaneously every day for six days. In each patient there was diminution of pain after the second dose; and after the fourth dose, the patients were entirely free from pain. The lesions healed in about ten days.

✱

ORRIS R. MYERS, M. D. (525 Seventh Street, Eureka).—I have read Doctor Goodman's report with interest, inasmuch as recently I had occasion to treat two cases with thiamin chlorid. I used 6,000 units intravenously, giving four doses on alternate days. The relief from pain was prompt, and the lesions healed within a week. Both patients had had pain for a week or more preceding treatment. I believe this method offers a great advance over our older means of treatment. For the local care of the lesions, I used 3 per cent ichthyol in collodion.

✱

ARNE ELY INGELS, M. D. (490 Post Street, San Francisco).—Doctor Goodman's favorable results with thiamin chlorid is welcomed by everyone who confronts the treatment problem of herpes zoster. Its value in the author's cases seems unquestionable beyond a mere coincidence.

When the usual approach is exhausted, excluding metastases to vertebrae, syphilis, peripheral neuritis and central nervous diseases, and the usual routine treatments (consisting of autothermotherapy, solution of K. I., vaccination, eventually morphin sulphate, pituitary extract injections, besides local applications and heat), all prove valueless, then it will be imperative to have a remedy at hand.

I wish the author would compile other cases, as time goes on, and report a larger number.

THE LURE OF MEDICAL HISTORY†

RARE MEDICAL BOOKS IN HUNTINGTON LIBRARY, AT SAN MARINO*

By L. BENDIKSON
San Marino

ABOUT half a year ago I had the pleasure of giving a talk before the Hollywood Academy of Medicine, about certain experiments in the field of documentary photography, as conducted in the laboratories of the Huntington Library at San Marino. But before starting with the main subject, I considered it would be appropriate to devote a few minutes to the rare medical books found in that famous institution, because their presence there is not generally known. And it is certainly not commonly known that there are in that library over one thousand medical books, originating from the first century of printing, which by themselves constitute a veritable reference library for the history of medicine. For no other purpose than to convince the audience of these facts, I then showed a few slides, representing some of the Huntington Library's rarest works on medicine. In consequence, the following account is in no way to be considered as a bibliographical attempt to cover a specific group of books, but merely as a random selection of rare medical works found at San Marino.

The first large group is that of the Incunabula, books which appeared during the first decades of printing. They represent the medical notions of the Middle Ages inherited from antiquity, as well as the more modern points of view, set forth in the new science of the Renaissance. The ideas prevalent in those books were those of Aristotle and Hippocrates, or rather their synthesis by Galenus. To show representative works of this group, in their very earliest editions, has not infrequently met with this difficulty, that the essays of some of the best-known writers appeared as a part of, or as a sequel to the works of other authors.

Hippocrates' *De medicorum astrologia*, for instance, as translated into Latin by Petrus de Abano, was published in Venice in 1485, as the concluding chapter of a work called *Opusculum repertorii pronosticon*. . . . The works of Aristotle, however, appeared at an early date, in collected form, and I could mention here the Greek version, as printed by Aldus Minutius, in Venice, in 1495.

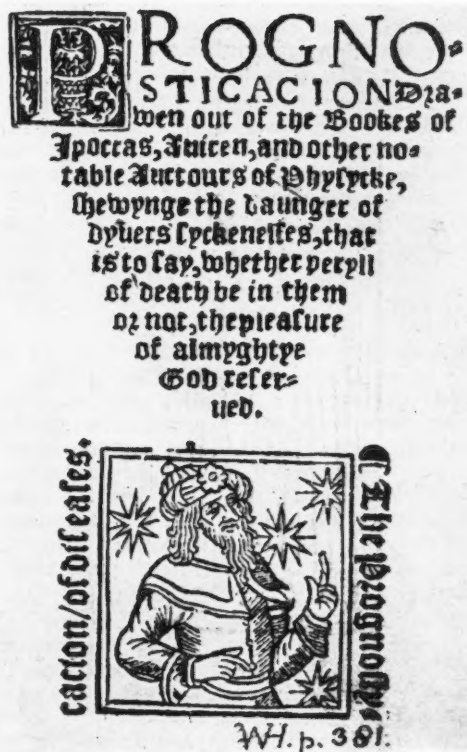
Galenus' *Therapeutica*, also in Greek, was printed in the same city in 1500.

There are many books that are considerably older than these three, as Rodrigo Sanchez de Arevalo's *Speculum vite humanæ*, printed thirty-two years earlier, in 1468, and Avicenna's *Canonis medicina libri* . . . of 1473.

Instances of collective publication of the works of several authors are the following: Arnoldus de Villa Nova's *Tractatus de arte cognoscendi venena*,

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

* Illustrations referred to in the text were presented at the time the lecture was given. Only one of the series appears in this printed article.



Ippocras, and Auiçen.



Fig. 1.—This illustration represents recto and verso of title-leaf of the earliest separate publication in English of the *Prognostica* by Hippocrates, as printed in London, by Robert Wyer, circa 1530. (The Britwell-Huntington copy, one of three copies extant.)

issued as a sequel to Petrus de Abano's *Tractatus de Venenis*, was followed by Valascus De Tarenta's *De epidemia et peste*—the three issued together in Padua in 1473—and Magnusus Mediolanus' *Regimen Sanitatis*, of 1493, which not only contains the author's treatise, that gave its name to this book, but, in addition, essays by Arnoldus de Villa Nova, Aristotle, Barbantius, and Averroes.

In a similar way, when I wanted to show an early edition of Guy de Chauliac's *Chirurgia*, I had to select a work that contained chirurgical treatises by Bruno, Borgognoni, Lanfrancus, and a few others as well.

To this same period belongs also a work of which the authorship has been a subject of dissension. It is called *De oculo morali* and has been attributed to John Peckham, to Petrus Lacipiera, and, finally, to Pierre de Limoges. It remains possible that Lacipiera was responsible for the Italian version, after all. It was printed twenty years after its *editio princeps*, of 1476, likewise to be found in the Huntington collection.

I will conclude this first group with Bartholomaeus Anglicus' *De proprietate rerum*, of which work the Huntington Library has twelve different editions, all issued before 1495. The latest of these is the English version by John Trevisa, as printed by Wynkyn de Worde.

With the latter work we have entered into the second group, namely, of books on medicine and surgery in the English language, which are ex-

tremely well represented in the Huntington collections, and for this reason selection of only a few becomes rather difficult. Among the older books and based on doctrines of Hippocrates, is a rare octavo, printed by Robert Wyer, about 1530, with title *Prognostication, drawen out of the bookes of Ippocras and Auiçen*. From the same period dates *A new booke of medecynes . . .*, which was chiefly based on the writings of Gilbertus Anglicus. Other popular treatises are: William Bullein's *Bulwarke of defence againste all sicknes . . .* (1562) and *The Englishman's doctor*, by John Harrington, of 1607.

Of the more scientific works, I could name Robert Copland's translation of Guy de Chauliac's *Questionary of cyrurgyens*, printed in London in 1541, a forerunner of the works by Thomas Gale and William Clowes, who belonged to a group of surgeons, which, under the reign of Queen Elizabeth, endeavored to improve English surgery. Gale's *Certain workes of chirurgerie* was a collection of four treatises, published with a general title-page and a portrait of the author, in 1564. It has many illustrations and tables. Clowes's work appeared twenty-four years later, and the author directs his writings "To all the young Practizers of Chirurgerie." One of its illustrations represents the tool chest of a surgeon, as constructed for use on the battlefields.

Of obstetrical interest is Roesslin's *Birth of Man-kind*, reprinted more than twelve times in its days,

because it was the only book on the subject throughout this period. There is very much difference between the first and second editions, respectively, of 1540 and 1545. The book was translated by Richard Jonas from the Latin version, entitled "*De partu hominis*," and was not intended as a scientific treatise, but merely as a guide for prospective mothers and midwives.

Many books were written about the plagues that periodically swept over Europe. Benedict Canutus wrote the first "*Treatise against pestilence*" in 1510, and equally prominent in this field were the works of John Caius, one of the great leaders of medicine in England, who studied at Cambridge and under Vesalius in Padua.

So far I have briefly summarized two of the larger groups of medical books in the Huntington Library, and I will mention only five more representative works. In the first place, Andreas Vesalius' anatomical masterwork, in one of its best Paris editions, printed in 1565. Another item of great rarity is Diaz de Ysla's *Tractado contra el mal serpentino* of 1539, which is the first exhaustive study published about lues, or, as it was then called, "El mal serpentino." The three remaining works are, likewise, exceedingly rare and very little known, in spite of the fact that they belong to the earliest books printed on the American continent. They originate from Mexico, shortly after the days of the conquistadores. They are Alonso Lopez de los Hinojosas' *Summa y recopilación de chirurgia, con un arte para sagrar*. Its date is 1578. This was followed, within a year, by Augustin Farfan's *Tractado breve de anathomia y chirurgia y de algunas enfermedades*, and in 1592 by his *Tractado breve de medecina*.

The bibliographical divisions of the Huntington Library have compiled two lists of medical books in this library. The first one, called *Incunabula Medica*, contains over 500 titles; and the second, called *Medical Knowledge in Tudor England*, lists 60 titles, with short descriptions. These lists, describing certain groups of medical books, as their titles imply, can be obtained from the Library's publication office. Rather recently, a third mimeographed list has been compiled of a somewhat different nature. Pursuant to its policy of preservation, the Huntington Library has reproduced in the past several thousands of its rarer works by photostat, and is now prepared to print and supply copies of them. Among these thousands of reproductions are many works relating to medicine and science, and the list referred to, containing 270 such titles, is now available on request.

Henry E. Huntington Library and Art Gallery.

AN ADDRESS TO A BOTTLE BY THE POET HORACE¹

By DOUGLASS W. MONTGOMERY, M. D.
San Francisco

ON receiving the July Bulletin of the San Francisco Medical Society my eye caught a short résumé of the transactions of "The Medical Friends

¹ Horace: Od. III:XXI. The term "bottle" is employed here as giving a more natural, though not so exact, translation for amphora than "jar." We bottle our wines; they put theirs in jars.

of Wine." Some members drank it at their meals as an aid to digestion and to sociability; some spoke of its excellent effects as a medicine; and others of its soothing and relaxing qualities.

Undoubtedly much good can be accomplished in this way in encouraging the leisurely, moderate enjoyment of alcoholic beverages, and it is along the line repeatedly followed by the poet Horace, whose "Address to a Bottle" is one of his most felicitous efforts.

* * *

One day Horace went upstairs to his apotheca or wine room to get a jar of wine that had been bottled of even date with his own birth, and which was to serve for entertainment at a dinner given to an old friend, M. Valerius Messalla Corvinus. While having it conveyed downstairs he reflected on the many ways its contents affects human beings; and they are infinite—as many, indeed, as there are types of minds. Some it makes merry; others mad; still others insanely in love; while some, under its influence, go quietly to sleep. There is nothing else in the whole pharmacopeia that causes such a variety of reactions.

Here Horace grew tender and coaxing; and, addressing the jar personally, said: "My dearest jar, do none of these things. Do not even soothe to sleep; and when my old friend requests it, pour out an even mellow wine (languidiora vina) so that, under your gently stimulating influence, we may spend a delightful evening together."

Then he proceeds to relate some of the good qualities which a good wine, when properly and temperately enjoyed, should possess, and tells the jar that Messalla, though a scholar steeped in philosophic lore, is no ill-tempered person, but one keenly appreciative of a good, well-seasoned wine, bottled now for at least forty years. Wine such as this would warm up the virtue of even stern old Cato; it gently but firmly stimulates the dull; it makes the overcareful forget his cares, and it gives courage to the anxious and oppressed.

Finally, he requests his gentle bottle to bring to this evening's enjoyment Liber, the God of Free Expression; Venus, the Goddess of Mutual Affection, and the lovely Graces; and he hopes that the banquet may last till daylight!

* * *

Horace and Messalla were very old friends, a friendship tried through many a vicissitude. As youths they had studied together in Athens and, also as youths, they had quite naturally joined the party of the idealist Brutus against Augustus and Anthony. After the disastrous Battle of Philippi, where Brutus was killed, they both escaped. Messalla, as a member of a wealthy senatorial family, may not have suffered severely for having joined the defeated party, but Horace was reduced to poverty through the confiscation of his paternal estate.

Messalla afterwards joined the party of Augustus, and was present at the Battle of Actium, became consul in Aquitaine, in Gaul, and even received the honor of a triumph. At the time of this banquet he had retired to a life of literary ease and

comfort, and was a patron of literature, notably of the poet Tibullus.²

After the Battle of Philippi Horace had severe trials. His estate, as previously mentioned, had been confiscated, but he was comparatively fortunate in securing a clerkship in the treasury department of the government, where he remained computing taxes with the awkward Roman letters until, by the publication of some of his satires, he became known. His case was a parallel to that of Bobbie Burns, who got a place as gauger (inspector) of whisky stills in the excise in Scotland. So fate fashioned two of her finest brains, and then provided them with very lowly occupations.

The bottle, too, had passed through its dark days, stored as it was in a garret, and exposed to the soot and the smoke of the household fires. It must be remembered that the Roman houses had no chimneys and that, therefore, the upper rooms were smoky, and were given over to slaves and a wine room. The smoke was supposed to aid in ripening the contents of the amphorae, or jars. Undoubtedly, like Horace and Messalla, the bottle showed on its exterior the marks of advancing years and, like them, through long years of trial it had become inwardly mellow, and when its spirit was poured out it sparkled and was ready to add to the pleasure of the occasion if properly and moderately enjoyed.

The aging of wine has always been regarded with favor and reverence; and rightly so, as it tends, like ourselves, to grow mellow with years. In this, up to a certain point, the container participates. *Vile saepe cadus nobile nectar habet—"the best wine comes out of an old bottle."* To produce a flask covered with cobwebs is a matter of pride in an otherwise immaculate household. Here, again, the comparison with human beings holds good, since oftentimes, under a threadbare coat, lies an excellent understanding and, as Burton remarks: "Horace himself was a little blear-eyed, contemptible fellow, yet who so sententious and wise?"³

In reflecting over what I have related we may recall that, in addressing the bottle as he came downstairs, Horace admonishes it to pour out an even mellow wine. There is an important meaning behind this phrase, *languidiora vina*, especially important to medical men in prescribing for their patients. Both Messalla and Horace were upwards of 40 years of age and were steady users of the product of the grape, and, therefore, would tend to become allergic to this form of sugar. As Rabelais remarks, they probably had begun to recognize the symptoms of approaching age though they would tell it to no one; and although they found wine more than ever agreeable to their taste, yet more than ever they feared happening upon a bad wine.⁴ This fully explains, I think, the solicitude of Horace in the present instance.

Whisky, however, especially that from an old barrel, is free from this defect; but, unfortunately for them, neither Messalla nor Horace knew of this delightful beverage—delightful, I would say, when used moderately and circumspectly.

Much has been written about wine, both for and against, but very little of the container, which undoubtedly is a neglect. We see, however, that Horace did not neglect the bottle, but addressed a beautiful ode to it, and in a most personal way. Horace and Messalla are dead and gone, the bottle is likely broken, and its contents we know were consumed; but the song, although nearly two thousand years old, remains, and grows even mellow and more enjoyable as time silently passes on.

450 Sutter Street.

HISTORY OF SAN FRANCISCO COUNTY MEDICAL SOCIETY

ONE OF FOUNDERS ARRIVED IN 1850; BEGAN PRACTICE IN TENT

IN the mad rush for California gold ninety years ago there were doctors in San Francisco whose thoughts were upon the practice of their profession. While the butcher, the baker and the candlestick maker were streaking it for the Sierra foothills to find a fortune, a handful of physicians were contemplating the formation of a medical society here.

The records of those dim and distant days have almost faded from existence, but we know that one of the founders of the first medical society here was Robert K. Nuttall. He arrived here in May, 1850, and with Dr. Robert Mackintosh, son of Sir William Mackintosh, a professor in the Edinburgh Medical School, he started to practice medicine in their tent, pitched on North Beach. Doctor Nuttall later married Magdalena, daughter of John Parrot, and built a home next door to his father-in-law on the northwest corner of Montgomery and California streets—in the very heart of the present financial district.

Due to the wanderlust of those days, the first medical society died from neglect. It was reborn when a group of physicians gathered on June 22, 1853, and formed the San Francisco Medical Society. Dr. Theodore Dimon was elected president. The physician chosen to fill the vice-presidency was Stephen R. Harris, who that year [actually] served as the third mayor of this city.

Due, perhaps, to the same factors which militated against the permanency of the first society, this reorganization of 1853 did not "take" either, and there were at least three subsequent reorganizations.

FORTY MEMBERS IN 1868

By 1868 the San Francisco County Medical Society seemed to be launched upon a certain and continuous course, under the guidance of Dr. J. P. Whitney. There were forty members, many of whom as John F. Morse, H. H. Toland, Henry Gibbons Sr. and Jr., bear names well known to students of local medical history.

Their Code of Medical Ethics, Section I, Article I, begins: "A physician should not only be ever

² M. Valerius Messalla Corvinus was born in 64 B. C., and was one year younger than Horace, born in 65 B. C.

³ Burton's *Anatomy of Melancholy*, 2:10.

⁴ Rabelais, *Pantagruel*, Bk. II, ch. XXVIII.

ready to obey the calls of the sick, but his mind ought also be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. These obligations are the more deep and enduring, because there is no tribunal, other than his own conscience, to adjudge penalties for carelessness or neglect."

In the next three decades, which brings us up to 1900, the society continued to grow in numbers and influence, both professional and civic. It lent its aid and advice in framing legislation upon medical licensure so that charlatans and quacks who feed upon the credulity of the ailing members of society could be dealt with under the law, and that those properly qualified to practice medicine and surgery could be certified as competent in their chosen profession.

LIBRARY STARTED

For many years prior to the earthquake and fire of 1906 the San Francisco County Medical Society met in Native Sons Hall. The society was sufficiently rooted in the life of the city by this time that the great catastrophe only briefly interrupted its continuous existence, and so it shortly took up its abode in the Butler Building at Geary and Stockton streets. There it gathered a reference library for the use of its members. Meetings and business of the medical society were held and transacted there until February, 1918, when the society's headquarters were moved into the newly constructed Medical Building at 909 Hyde Street.

For fifty-three years after 1873 when the retiring president, John F. Morse, expressed the desirability of a permanent home, there were numerous plans made to construct or purchase a home for the society. These came to fruition in 1926 when the society purchased the Irwin mansion on Laguna and Washington streets.—*San Francisco News*, June 17.

CLINICAL NOTES AND CASE REPORTS

QUESTION REGARDING DIAGNOSIS

By VERNON O. STAHL, M.D.
Ontario

REPORT OF CASE

THE patient is a white girl of twenty-four years of age, height, five feet, five inches, weight 119 pounds. She looks to be in good health, and is normal in her mental attitude toward life. In August, of 1938, I was consulted, and the following salient points were obtained:

In childhood, the girl was quite sickly, frequently having "bilious attacks," and a persistent frontal headache. At ten years of age, her tonsils were removed. Menses began at eleven and were regular until the age of eighteen, when they became quite irregular; however, from the ages of fourteen to eighteen she had a period of comparatively good health. At eighteen, her present illness began. It started with headache, general malaise, loss of weight, loss of appetite, poor digestion with vomiting spells, and a temperature that persisted. The temperature ranged from 99 to 100.

In August, of 1935, she went to the Sansum Clinic in Santa Barbara, whose clinical and laboratory findings I am enclosing. As you will see, the examination was essentially negative.

Later, the patient came to the Abbott Clinic in Ontario. By that time she had gone down in weight from 117 to 85

pounds. Although no definite diagnosis was made, it was thought that the cause of the trouble was a misplaced uterus. Ovarian and pituitary injections were given for a year and a half, and under this treatment the patient regained much of her weight, weighing 110 pounds at the end of that time. In July, 1937, a suspension and appendectomy were performed. There was a marked improvement in digestion, but the other symptoms and the temperature remained. Two months later, she was diagnosed as having undulant fever, dilution undetermined, when she was given metaphen, brucellergen, and then sulphanilamide. The temperature, however, still persisted.

There is no history of chest pains nor of cough. The patient seldom has a cold, but, rather frequently, has sore throat. The menses last from seven to eight days, and are of a normal amount. There is slight leucorrhea of a whitish character, but no dysuria. No kidney trouble or pain. She is somewhat nervous, but sleeps well, although lightly. Patient states she used to grind her teeth at night.

In August, 1938, physical examination showed a well-nourished girl; weight 115, blood pressure 100/70, sinuses clear. Nose moderately congested, with hypertrophied turbinates. Teeth good. Throat clear, except for tonsil tags on left. Ears clear. Heart regular, with no murmurs. No enlargement demonstrated. Pulse 80. Temperature 99.8°. There were harsh breath-sounds at the right apex, both anterior and posterior. No râles noted. Focal fremitus normal. Expansion normal.

Both nipples moderately inverted, more so on the left, with the nipple closely attached to the underlying areolar tissue. Transillumination showed a small cyst. The abdomen was negative, except for the midline scar from operation. Vaginal examination essentially negative. Uterus of normal size, with second degree retroversion, freely movable, and adnexa clear.

The following laboratory work was done:

1. Blood: Hc., 86 per cent; R. B. C., 3,960,000; Color Index, 1.1; W. B. C., 6,250; Polys., 54; Ly., 39; Mono., 4; Eos., 2; Stab., 1.

2. Urine: Ph., 5; Alb., negative; Occasional pus cell.

Numerous follow-up urine examinations have continued with results much the same, pus cells being present.

3. X-ray negative. Taken by us, and read by Doctor Nevius. One taken in January, 1939, also negative.

4. A stool culture, run at the San Antonio Community Hospital, was negative throughout for ova and parasites.

5. Undulant fever was positive, through a 1:150 dilution. The opsonocytaphagic index was as follows: Marked, 0; Moderate, 5; Slight, 12; Negative, 8.

Due to the fact that I had received a number of positive results of questionable degree from this laboratory, I sent the blood to Karl Meyer, which he tested personally, and to the Bureau of Laboratories at Berkeley. Both places pronounced it negative for undulant fever.

6. The blood Wassermann was negative.

In August, the patient was given an iron tonic, Lugol's solution, abdo capsules, yeast, and molasses for upbuilding. Mineral oil, milk of magnesia, and Clark's pills for her bowels. Estrogenic substance was given three times a week, 1 grain thyroid a day. Later, liver, 10 units, 1 cubic centimeter was given twice a week, along with 3000 units of vitamin B. Under this regimen, the patient has gained four pounds. Her blood pressure is from 107/75 to 110/75. There has been moderate headache. The temperature, ranging from 99 to 100, and the tired feeling, have continued. The breast has cleared nicely. In the past two weeks one-quarter cubic centimeter of Sherman vaccine has been given, once a week, also, two Jaculin a day.

Now this is the question: What is causing the persistent temperature?*

225 Fallis Building.

SANSUM CLINIC REPORTS

August 7, 1935

Blood pressure, 112/70; weight, 103; height, 5 ft. 5 in.; temperature, 99°; pulse, 104; respiration, 22.

Urine: Color, straw; appearance, clear; reaction, 7; spec. grav., 1.009; alb., 0; sugar, 0.

Low field: Casts, 0.

* Editor's Note.—Suggestions may be sent to Vernon O. Stahl, M. D., 225 Fallis Building, Ontario, California.

High dry field: Pus cells, 0; blood, 0.

Ewald Test Meal: Free HCl, 36; total acid, 56.

Basal Metabolic Test: Results in per cent, —11.

Blood: He., 87 per cent; R. B. C., 4,630,000; W. B. C., 9,700.

Complement Fixation: Kahn, negative.

Blood Sedimentation Rate: Sedimentation in 60 minutes.

Orthodiagram: Lungs, negative; aorta, normal; heart diameter is 42 per cent of internal chest diameter.

Agglutination: Abortus, tularemia, typhoid, para A, para B, all negative.

Gastro-Intestinal Tract:

Preliminary studies of the urinary tract and gall bladder area show no evidence of calculus. The chest is fluoroscopically negative. The esophagus presents no irregularity to the barium stream.

The stomach and cap show a normal mucosal pattern on study after the fractional meal. After the full meal there is no evidence of intrinsic defect in the stomach or cap. The pattern of the proximal small bowel is normal.

At five hours the stomach is empty. The head of the column has reached the hepatic flexure. The tail is in the terminal ileum.

At twenty-four hours, the large bowel was studied with a barium enema. The entire colon filled easily, without evidence of spasm, intrinsic defect, diverticulum, or developmental anomaly. The appendix was not seen.

Conclusion: There is no roentgen evidence of pathology in the gastro-intestinal tract.

Cervical Spine:

Anteroposterior and lateral studies of the cervical spine, including views through the open mouth, show a normal cervical vertebral alignment. The atlas and axis, as seen through the open mouth, present normal contours. The lateral projection shows no evidence of traumatic or anomalous irregularity. The styloid processes are unusually overdeveloped, their tips extending well downward into the fauces. In the anteroposterior view of the lower cervical spine a slight overdevelopment of the left transverse process of the seventh cervical vertebra is seen.

Conclusion: The cervical spine is normal, except for a slight overdevelopment of the left transverse process of the seventh cervical vertebra.

Physical Examination:

A good deal underweight; teeth in good condition; a small tonsil remnant on the left side; the submaxillary glands in neck slightly enlarged; lungs clear throughout; heart rhythm regular, with a slight roughness of heart-tones; a slight tenderness over the upper right and mid-portion of abdomen; rest of examination essentially negative.

Duodenal Drainage:

Found that liver, in particular, not secreting properly.

GYNATRESIA WITH TORSION OF RIGHT ADNEXAE

REPORT OF CASE

By NORRIS R. JONES, M.D.

Sacramento

CASE 1.—Case No. 77466. Admitted on December 2, 1938, and discharged on December 14, 1938.

A white girl, aged 15 years, became suddenly ill on the morning of December 2, 1938, after arrival at school. Her complaint was sharp, cramp-like pain in the right lower quadrant. She was sent home by the school nurse. The patient was first seen by me at about 10:30 in the morning, at which time she was lying in bed with both thighs flexed on the abdomen, and seemed to be having considerable pain.

The family history was negative. She had had the usual diseases of childhood and had had a tonsillectomy performed in 1931. Questioning developed the fact she had never menstruated, but her past health had been excellent and she had had no symptoms prior to the present attack. She had vomited shortly after returning home from school. Her bowels had moved normally that morning and there was no history of urinary disturbance.

Examination revealed a temperature of 98.4; pulse, 90; respirations, 24. The remainder of the examination was

negative except for exquisite tenderness over McBurney's point with the lightest pressure, plus marked muscle spasm. Rectal examination was not done. A tentative diagnosis of acute appendicitis was made and the patient was transferred to the Sutter Hospital. A catheterized specimen of urine was negative. The blood count revealed: 74 per cent hemoglobin; 8,450 white blood cells; 86.5 segmented forms; 1 staff form; 1 eosinophil; 26 lymphocytes; 3.5 monocytes.

A possibility of torsion of the ovarian pedicle was considered, but it seemed more likely that a very fulminating type of acute appendicitis, with an early gangrene, was responsible for the symptoms.

Procedure.—Under gas anesthesia a McBurney incision was made and when the abdominal cavity was entered a small amount of blood-tinged fluid escaped. A bluish mass bulged into the incision, which was identified as the right tube and ovary, twisted three times on its pedicle. The pelvic peritoneum showed a large amount of dark brown staining, and the lower border of the omentum appeared quite black for a distance of an inch from the periphery. The appendix was normal. The left tube and ovary were normal, as was the uterus. A large mass was felt extending downward from the cervix, which was extraperitoneal and somewhat compressible. Examination of the pelvic contents revealed that the mass had forced the uterus and the adnexae into an abnormally high position in the abdominal cavity, and may have played some part in the production of the torsion, since there was no history of trauma or unusual physical activity prior to the onset. The mass was felt to be a vagina full of retained menstrual blood, and a tentative diagnosis of imperforate hymen or vaginal atresia was made. The right tube and ovary were removed in the usual manner; the appendix was also removed. The staining of the peritoneal tissue and periphery of the omentum was due to blood pigment which had either passed through the fimbriated ends of the tubes or through the walls of the vagina. The abdomen was closed in layers without drainage.

The patient was then placed in lithotomy position and examination revealed a complete absence of vaginal opening. A vertical incision was made between the labiae majora and carried inward by sharp gentle dissection until a bluish mass was encountered. This was incised and proved to be the blind end of the vaginal tube. More than a quart of chocolate-colored fluid was emptied from the tract. The cut edges of the vagina were then sutured to the skin by means of a continuous suture, thus restoring the normal anatomy.

The pathologic report is as follows:

"The specimen consists of the ovary, tube, and appendix. The ovary contains a large cyst having a diameter of seven centimeters. Its surfaces are of a purplish color. The walls appear to be edematous. The ovary is also very markedly congested and hemorrhagic in appearance. The tube is of about twice normal thickness, the walls are hemorrhagic and deeply congested. Marked edema of the entire length of the tube is noted. There is nothing of note in the appearance of the appendix.

Microscopic examination shows the following: The ovarian tissue is very markedly edematous. The stromal cells are separated widely, having the appearance of myxomatous tissue. Marked interstitial hemorrhage is noted. The veins and small capillaries are engorged with blood. The wall of the cyst described above is lined with cuboidal epithelium. Many macrophages are present throughout the stroma which are loaded with hemosiderin.

The tube also shows marked edema of the walls. The mucosal folds are rounded and the stroma contains many macrophages with hemosiderin granules. The connective tissue cells are spread widely apart by a collection of fluid. A moderate number of polymorphonuclear leukocytes are seen in the stroma and also throughout the wall. The vessels on the surface show marked engorgement.

Diagnosis.—Large follicular cyst of the ovary. Partial early hemorrhagic infarction of the tube and ovary due to obstruction of the vascular supply."

The patient made an excellent recovery and was discharged from the hospital on the twelfth day.

This case report reemphasizes the importance of inspection of the genital tract and rectal examination, which were not done in this instance.

Medico-Dental Building.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

TYPHOID FEVER: ITS IMPORTANCE

I. THE CONTROL OF TYPHOID FEVER IN CALIFORNIA*

WALTER M. DICKIE, M. D. (State Building, San Francisco).—In 1874, William Budd, M. D., published an article on the nature, mode of spreading and prevention of typhoid fever, stating: "There are few things which concern the people of this country more deeply than to know the exact truth touching the mode in which this fatal fever is disseminated amongst them. Every year, on the average — take the United Kingdom through — some fifteen thousand or more of their number perish prematurely by it: a population equal to that of a considerable city every year swept into the grave by a single, and as I hope to show, a perfectly preventable plague!" This statement was written at a time when the doctrine, that typhoid fever was a contagious fever, was referred to as "an illusive hypothesis." In addition to observing, at that time, that the disease was contagious, Doctor Budd noted that convalescents could not "always be safely allowed to mix with others without precaution."

In 1938, 473 cases of typhoid fever were reported in California. Of this number fifty-five terminated fatally, although there were no outbreaks involving more than ten cases.

The prevention of typhoid fever depends upon eliminating the typhoid bacillus from food and water supplies, and otherwise preventing its entrance into the human body. Thus prevention includes:

1. Careful supervision of all cases of typhoid fever, and adequate disinfection of the patients' excreta.

2. Supervision of the patient throughout convalescence, including laboratory examinations of urine and feces, with release only where such specimens are proven free from typhoid bacilli.

3. Careful epidemiological investigation of each case to determine source:

- (a) If water: source of contamination to be eliminated.

- (b) If milk: carrier to be found and excluded, or contamination of water to be corrected.

- (c) If carrier: individual to be restricted as to occupation, and kept under supervision of the health department.

- (d) If ambulatory or missed case: patient to be placed under the control of the health department.

4. Immunization of persons exposed to the risk of contracting the disease.

The supervision of sewage disposal and water supplies has accomplished much in the prevention

of this disease. In general, the higher the standards of sanitation the lower the incidence of typhoid. The supervision of the production and distribution of milk and milk products is also a part of the prevention program. When these avenues of disease-transmission have been closed, further incidence reduction is accomplished by close supervision of cases and known carriers through the aid given by trained, experienced personnel in well-organized health departments where adequate facilities are provided for careful epidemiological investigation; seeking carriers, ambulatory, and missed cases. When community protection is provided through the above listed procedures, immunization with typhoid vaccine is recommended only to those whose activities involve the risk of infection beyond the control of the individual.

The incidence of typhoid fever today proves Doctor Budd was correct in his unsupported contention that typhoid fever is preventable. Even though the number of cases recorded in California in 1938 represent the lowest on record, control procedures must be applied still more rigorously to insure this protection to the public.

* * *

II. TREATMENT*

GEORGE E. EBRIGHT, M. D. (384 Post Street, San Francisco).—The management of a patient during the course of typhoid may be likened to the navigation of a ship through waters beset with well-known and dangerous rocky reefs: the navigator of a ship, who knows the location of the points of danger, is better able to avoid them.

It is well, therefore, to remember that in typhoid fever, toxemia causes 50 per cent of the deaths, perforations 15 per cent, hemorrhage 10 per cent, and lung involvement 10 per cent, with the remaining 15 per cent from other complications. These figures, while admittedly approximate, are nevertheless sufficiently exact to indicate what may be anticipated as the greatest sources of danger.

There is no specific treatment with vaccine, serum, or bacteriophage. Specific drugs are lacking. Sulphanilamide has been tried, but the results are far from convincing.

Therapeutic extremes, with their dangers, have had their vogue. Calomel treatment throughout the disease, a futile effort to keep the intestinal canal free from offending material, has given way to a possible dose of calomel in the first few days of the disease. The violent Brand treatment of thirty-five years ago, which subjected the struggling, shivering patient to vigorous massage while in a tub of ice water, is gone.

* From the California Department of Public Health.

* From the University of California Medical School.

All intestinal antiseptics, salol, the longest popular, are futile. Urotropin as a prophylactic against gall-bladder infection, is useless in the presence of alkaline bile.

Gone, too, is the rigid milk diet with its coma of starvation acidosis, and the delirium of thirst and dehydration. Revolutionary advancement in treatment has been accomplished by the introduction of a generous diet.

Since the advent of this liberal diet, the mortality rate has been reduced from 20 to 10 per cent, tympanites has become unusual, diarrhea less a problem, delirium and stupor have been lessened, and there are fewer deaths from perforation and hemorrhage. While it is true that the virulence of the specific toxins may be overwhelming and fatal, nevertheless one is forced to conclude that starvation acidosis and dehydration have been of equal, if not greater, importance.

The essential element of typhoid treatment now consists of a high-value diet and the care of the alimentary tract.

The minimum daily diet should consist of three thousand calories, better four thousand. Food should be soft and of high caloric value.

Carbohydrates should constitute over half of the food. They are readily assimilable and save body protein. The free use of lactose, sugar and honey readily permits the administration of a large total quantity.

Fats make up one-third of the total calories, and are used in the form of butter and cream.

Eggs, milk and cream supply the proteins. A diet of three thousand calories will contain sufficient protein. If a dietitian is not available, nurses have access to the diet lists of Coleman and Schaffer. Three principal meals may be given, and also intermediate feedings between breakfast and dinner, between dinner and supper, and in the evening.

The vitamin content of typhoid diet is of important interest.

Vitamin A.—Fat soluble A which is present in butter, cream, egg-yolk, carrots, spinach, green peas, bananas, and cod or halibut liver oil is available in ample amount. If necessary, cod or halibut liver oil may be administered in ten thousand to twenty-five thousand U. S. P. units daily.

Vitamin B complex is essential to carbohydrate metabolism. Its effect in relation to polyneuritis also indicates the advantage of its use in typhoid fever. It is available in cereals containing wheat germ and in powdered brewers' yeast.

Vitamin C is required on account of its relation to the healing of wounds and also to carbohydrate metabolism, to say nothing of the suggestion of possible effects of infection, as claimed in whooping cough and diphtheria. It is usually deficient in the presence of fevers. An index of its content of the blood stream may be obtained by measuring its output in the urine. Sufficient quantity may be expected from the amount of orange or lemon juice taken, egg-yolk, butter, cream, and spinach, which is a part of the typhoid diet. If necessary, civitamic acid tablets, 100 to 300 milligrams, may be used, but an excess may do harm in hemorrhagic

conditions by producing a decrease of thrombocytes.

Vitamin D.—A patient deprived of sunlight for a number of weeks may be considered a candidate for rickets. The advantage, therefore, of wheeling the patient's bed into the open air can be readily understood in this connection. While it is true that he may not tolerate exposure to direct sunlight, blue sky contains effective ultra violet radiation. If necessary, the use of an ultra-violet lamp may be considered.

Fluids should be given in amply sufficient quantity, the condition of the patient's tongue being a useful index. A chart of fluid intake should be kept. At least 2000 cubic centimeters are required.

In delirium or in coma, resort must be made to any necessary device to introduce the desired amount of calories and of water; otherwise, acidosis due to starvation is very likely to supervene. Feeding through a nasal tube may be used. Fluids may be given subcutaneously or intravenously, or by rectum. Five to 10 per cent glucose intravenously has the double advantage of affording water and some nourishment.

The care of the bowels is of great importance. Cathartics should be avoided, although there is no great objection to an initial dose of calomel and a mild saline, if the patient has been a heavy eater and is seen in the first few days of the disease. Thereafter, a daily cleansing enema of soapsuds or saline usually serves the purpose of emptying the rectum. The objections to the use of petroleum oil outweigh its usefulness. It should be remembered that troublesome diarrhea may be due to cannulated impacted feces in the rectum or sigmoid.

Diarrhea sometimes occurs due to too much cream, or too much sugar or lactose or fruits, and may usually be controlled by regulating the diet accordingly. Tannin preparations or bismuth may be used; remembering, however, that an excess of bismuth may cause an impaction in the large bowel, and also that a small dose repeated more than a few days easily becomes a source of trouble.

Codein, morphin, and all opium derivatives are anathema in typhoid. They depress peristalsis and tend to the production of meteorism, and they may increase the danger of paralytic ileus.

Toxic ileus is an ever present danger to typhoid, and opiates enhance that risk. The resulting distended tympanitic abdomen makes feeding nearly impossible, induces starvation acidosis and coma, predisposes to perforation and hemorrhage, and makes the diagnosis of perforation practically impossible. One cannot paint too vividly the tragic picture presented by a patient in whom paralytic ileus has occurred following the constipating effect of even a few doses of codein.

Tympanites should be combated chiefly in its prevention. If it does occur it is advisable to use soap suds or soda bicarbonate enemas, and the insertion of a rectal tube from time to time. Turpentine stupes should be applied and the diet adjusted. The use of pituitrin invites perforation and is, of course, out of the question.

Hemorrhage, early in the disease, occurring from capillary engorgement, is rarely serious.

Later erosion of an ulcer into a large artery or vein may be rapidly fatal. In the presence of hemorrhage all food is withheld and very little water allowed. Cold applications are kept on the abdomen. The rule against the use of opiates must be broken, and an eighth of a grain or one-fourth of a grain of morphin, or an equivalent dose of pantopon or dilaudid, used as needed to keep the patient quiet. Hemostatic drugs are useless.

Perforation of the bowel requires immediate laparotomy, every hour of delay lessening the chances of the patient's recovery. Early diagnosis of perforation is imperative, and frequently is extremely difficult or impossible. The attending nurse should be impressed with the importance of observing and immediately reporting the following indications: any abdominal pain—as a chill—a feeling of chilliness, and even "feeling cold," a sudden rise in the pulse, or a sudden drop in temperature, particularly when the latter two are associated, and the patient is delirious or in coma. Of course, if the mind is clear, pain and the evidence of shock, and physical signs of perforation—such as tenderness and muscle spasm in the right ileac region, and localized skin sensitiveness—are positive aids. Leucocytosis, if it occurs at all, is to be expected later with the advent of peritonitis.

In the distended tympanitic abdomen of a delirious or comatose patient, recognition of the occurrence of perforation of the bowel is extremely difficult. It is under such conditions that shock may only be evidenced by a drop in the fever together with the rise of the pulse rate. Chilliness may be so slight as to be entirely overlooked except by the most watchful and experienced attendant. Ovarian colic may simulate perforation; and as menstruation is frequently suppressed during the fever, the differential diagnosis may be quite troublesome.

Fever, when as high as 102½ to 103 degrees, requires rational hydrotherapy for the patient's comfort. A tepid or alcohol sponge every two hours is beneficial. A cold-pack, consisting of placing the patient between blankets and enveloping him in a sheet wrung out of cold water, may frequently be used to advantage.

Delirium may require a sedative such as one of the barbiturates; but, as a rule, depressing drugs should be withheld, if possible. Hydrotherapy, as mentioned above, acts as an excellent nervous sedative. A resourceful nurse can do much in controlling agitation. Patients with typhoid, not only during the fever but also during the early afebrile convalescence, should never be left alone nor should the nurse be careless of her own safety, because sudden violent homicidal or suicidal impulses may supervene in an apparently rational patient. From a medico-legal standpoint, a patient, who has been apparently rational throughout the course of the disease, may have no recollection of anything that happened during his illness.

"Typhoid precautions" are generally understood to consist of meticulous care in preventing the spread of the disease from the patient to other persons, involving sterilization of the patient's

effluvia, his clothing, eating utensils, and anything that has been in contact with him. No nurses or other persons should be in contact with the typhoid-fever patient except those who have been immunized against typhoid during the preceding two years, and whose antityphoid vaccination has been completed at least four weeks previously.

The opinion of immunologists is divided as to whether members of the patient's family or contacts should be vaccinated. Halliday, who had wide experience as an epidemiologist, opposed it on account of the negative phase in the week after the first injection. Immunization is not conferred for three or four weeks after vaccination. One is forced to the conclusion, then, that this procedure should be advised against as being still in the experimental stage, and that it is not without danger.

* * *

III. ACUTE SURGICAL COMPLICATIONS

WALLACE I. TERRY, M. D. (384 Post Street, San Francisco).—About forty years ago the late Dr. William W. Keen published a volume of four hundred pages entitled, "The Surgical Complications and Sequels of Typhoid Fever," based on thousands of cases from the literature and from his own experience.

Fortunately typhoid fever is relatively a rare disease today, and many surgeons of the younger generation have never seen a patient with a perforated bowel or gall bladder due to typhoid infection.

Nevertheless, during the years 1935 to 1938, inclusive, a total of 2105 cases of typhoid fever has been reported in California with 255 deaths, a mortality rate of 12.1 per cent. Based on the experience of past statistics, it seems safe to assume that approximately a quarter of the deaths were due to perforation of the bowel.

Of the acute surgical complications of typhoid there are five to be considered in this brief paper, viz., perforation of the bowel; peritonitis, not due to perforation; acute gall bladder disease; massive hemorrhage from the bowel; and rupture of the spleen.

Intestinal perforation occurs in about 3 per cent of all cases of typhoid and usually in the terminal portion of the ileum, although a fair number has been found in the sigmoid and other portions of the colon. Ulcers in the intestine are present in typical cases of typhoid, and it is usually during the third week of the disease when the ulcers are deepest that a perforation may occur. In many cases at autopsy the ulcers are so deep that only a paper-thin portion of peritoneum remains, and one is surprised that a "blow-out" has not taken place. Multiple openings are found in from 10 to 15 per cent of the cases of perforation.

The diagnosis of perforation in patients who remain conscious during the course of their sickness is relatively easy. In the typical case there is sudden severe abdominal pain, rigidity and tenderness in the right lower quadrant, nausea, vomiting, and collapse with a drop in body temperature and a rise in the pulse rate. The drop in tempera-

ture may be from three to six degrees, and may be due in part to sweating which follows the severe pain. The pulse rate in typhoid fever is low in relation to the height of the fever, averaging around 100, but jumps up twenty to forty beats per minute with perforation.

Abdominal tenderness is generally present during the course of the disease, but is intensified at the time of perforation.

Rigidity is an important sign and is readily discovered by gentle palpation. It is reflex in origin from peritoneal irritation, and is similar in type and location to the rigidity accompanying acute appendicitis.

Collapse with a marked fall in blood pressure is significant. There is a peritoneal shock which produces it. It is advisable, when there is a suspicion of impending perforation, to take the temperature, pulse and blood pressure frequently, so that sudden changes may be promptly noted.

If time and facilities permit, a properly made x-ray examination will show a gas bubble in the abdomen following bowel perforation.

The diagnosis of perforation in the comatose or delirious patient is more difficult to make, and we have to rely on the signs of collapse, drop in temperature, increase in pulse rate and abdominal rigidity or muscular spasm, with the x-ray findings.

It is, indeed, true that most of the above signs and symptoms may be present, and yet no perforation is discovered at operation. Such cases are not common, however, and no great harm has been done by a properly executed laparotomy—in fact one is able to reinforce the bases of ulcers which threaten to perforate.

The mortality rate of typhoid perforations of the bowel, without operation, is practically 100 per cent. The only logical treatment we now have is early operation with closure of the perforation.

A right rectus incision is generally preferable, and search for the puncture begun at the terminal portion of the ileum. As the opening may be very small, it is well to have an assistant watch one side of the gut, as it is being drawn out, while the operator scans the opposite side. Plaques of lymph on the bowel may conceal the perforation, and should be carefully detached. Failing to find the perforation in the lower three feet of ileum, one should next examine the sigmoid flexure of the colon.

Multiple openings, if close together, may necessitate a resection; but ordinarily a few interrupted silk sutures are sufficient to close a perforation, taking care that the bowel lumen is not narrowed, and reinforcing the suture line with a bit of omentum.

The toilet of the peritoneum and the after-care is the same as for other perforations of the intestine, such as gunshot wounds, where fecal contamination of the peritoneal cavity is present.

Owing largely to the general toxemia from typhoid the mortality rate following operations for perforation has been high, ranging around 70 per cent. up to the year 1907. Since that time many advances have been made in surgical technique and

in the treatment of typhoid fever, so that one could hope for a reduction of the mortality rate to 50 per cent. One should remember that the mortality rate of acute appendicitis with spreading peritonitis is anywhere from 27 to 50 per cent, according to Bower (*Jour. A. M. A.*, 112:11, 1939), and that such patients have not been weakened by prolonged fever and toxemia to the same extent as the sufferer from typhoid.

Peritonitis during the course of typhoid, and not due to intestinal perforation, has occurred in a fair number of cases. It may be due to appendicitis, suppuration of mesenteric glands, abscess of the spleen, pelvic inflammatory or, in some instances, to an undiscovered cause, possibly the passage of bacteria through the damaged intestinal wall. In any event the treatment is surgical.

Many years ago it was found that the typhoid bacillus was almost invariably present in the bile in cases of typhoid fever. It is not surprising, therefore, that gall bladder infections should result. Most of these complications are chronic in character and will not be considered in this paper.

Of the acute conditions, acute cholecystitis and gangrene of the gall bladder are to be mentioned, with or without perforation of that viscus.

Pain, tenderness, and rigidity of the right upper abdominal quadrant, with rather persistent vomiting and occasional jaundice, are aids to the diagnosis of acute gall bladder disease. When the gall bladder has perforated, the symptoms of a spreading peritonitis are superadded. The operative procedure will depend upon the condition of the patient—a cholecystectomy preferably or a cholecystostomy. One case of simultaneous perforation of the gall bladder and multiple perforations of the ileum was reported by Kiliani in 1907.

The leucocyte count is apt to be of little value in the diagnosis of gall bladder or bowel perforation. A leucopenia generally accompanies typhoid fever, and the blood picture may not change after the abdominal crisis sufficiently early.

Hemorrhages from typhoidal ulcers are quite common, but only infrequently do they produce alarming symptoms. These hemorrhages are most frequent during the second and third weeks of the disease, and may be associated with perforations. Blood transfusions are indicated after the more severe hemorrhages. It is scarcely justifiable to open the abdomen and search for a bleeding point, although one such operation was reported where an open vessel was found and ligated.

Spontaneous rupture of the spleen has been reported in a few cases, usually with a fatal outcome. One notable case was promptly diagnosed and a successful splenectomy done, as reported by Conner and Downes. In their case the principal diagnostic features were severe pain in the left hypochondrium and the left shoulder, with marked dullness in the left flank due to intraperitoneal hemorrhage.

If the diagnosis of perforation or other serious complication of typhoid fever is to be made early, it means intelligent and constant watchfulness on the part of the nurses and the physician, especially during the second and third weeks of the disease.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION†

CHARLES A. DUKES.....President
HARRY H. WILSON.....President-Elect
LOWELL S. GOIN.....Speaker
KARL L. SCHAUPP.....Council Chairman
GEORGE H. KRESS.....Secretary and Editor

OFFICIAL BUSINESS ASSOCIATION ACTIVITIES

1. *Wagner Health Bills (S. 1620 and H. R. 6635).*
2. *Roster of California Congressmen.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Meeting of Committee on Public Relations: Minutes.*
2. *Health Insurance in Australia Is Dead.*
3. *Profession Warned by New Zealand Government.*
4. *California State Board of Public Health.*
5. *Vital Statistics for California.*
6. *Joint Meeting of Sonoma, Solano, Marin, and Napa County Medical Societies.*
7. *Group Medical Care in Michigan.*

"WAGNER HEALTH BILL" (S. 1620) AND AMENDMENTS TO HOUSE RESOLUTION (H. R. 6635)*

Resolutions

WHEREAS, A proposed Federal law, submitted by U. S. Senator Robert F. Wagner of New York, and known as the "Wagner Health Bill: S. 1620," is now being considered in Senate committee hearings at Washington, D. C.; and

WHEREAS, S. 1620, if enacted into law, would introduce such radical changes in the public health set-up of the Federal and State governments, as well as in curative medical practice, so that a real menace would be created to the public health interests of United States citizens, as well as to medical practice standards as now constituted, and also to the ancillary hospital and other services associated in preventive and curative medicine; and

WHEREAS, The existing plan of medical practice, based as it is on a merit system of competitive practice, free from all political domination and paternalism, has been largely responsible for making it possible for the United States and its federated commonwealths to show the lowest morbidity and mortality rates among civilized nations; now therefore be it

Resolved, By the California Medical Association, through its Council, that the component county medical societies and the members of the Association be urged to write to the California members of the United States Senate and House of Representatives requesting them to use their best efforts to prevent the passage of S. 1620, and of proposed laws of analogous nature, such as are proposed in the amendments submitted by Senator Wagner to House Resolution 6635.

† For complete roster of officers, see advertising pages 2, 4, and 6.

* For other comment concerning S. 1620 and H. R. 6635, see in this issue, on page 73.

(Copy of a telegram sent to U. S. Senators Hiram W. Johnson and Sheridan Downey of California)

San Francisco, June 30, 1939.

Hon. Hiram W. Johnson
Senator from California
The Capitol,
Washington, D. C.

The California Medical Association, on behalf of its six thousand physician members, urges you to oppose amendments to H. R. 6635, proposed by Senator Robert Wagner and now pending before Senate Committee on Finance. Amendments would authorize Social Security Board to extend medical and ancillary services to an ill-defined group of citizens, and would lay foundation of a form of national medical service that is worthy of more serious study before being inaugurated. The United States has lowest sickness and death rates among civilized nations, due largely to high standards of professional service rendered by America's physicians and surgeons. Your California medical constituents and their friends hope you will oppose Senator Wagner's amendments to H. R. 6635.

CALIFORNIA MEDICAL ASSOCIATION
By CHARLES A. DUKES, Oakland,
President,
HARRY H. WILSON, Los Angeles,
President-Elect.
GEORGE H. KRESS, San Francisco,
Secretary.

* * *

California Roster of U. S. Senators and Representatives*

U. S. Senators

Hon. Hiram W. Johnson (San Francisco).
Hon. Sheridan Downey (Atherton).

U. S. Representatives

1st District: Hon. Clarence F. Lea (Santa Rosa).
2nd District: Hon. Harry L. Englebright (Nevada City).
3rd District: Hon. Frank H. Buck (Vacaville).
4th District: Hon. Franck R. Havenner (San Francisco).
5th District: Hon. Richard J. Welch (San Francisco).
6th District: Hon. Albert E. Carter (Oakland).
7th District: Hon. John H. Tolan (Oakland).
8th District: Hon. Joseph V. Anderson (San Juan Bautista).
9th District: Hon. B. W. Gearhart (Fresno).
10th District: Hon. A. J. Elliott (Tulare).
11th District: Hon. Carl Hinshaw (Pasadena).
12th District: Hon. H. Jerry Voorhis (Valley Center, San Dimas).
13th District: Hon. Charles Kramer (Los Angeles).
14th District: Hon. Thomas F. Ford (Los Angeles).
15th District: Hon. John M. Costello (Hollywood).
16th District: Hon. Leland M. Ford (Santa Monica).
17th District: Hon. Lee E. Geyer (Gardena).
18th District: Hon. Thomas M. Eaton (Long Beach).
19th District: Hon. Harry R. Sheppard (Yucaipa).
20th District: Hon. E. V. Isaac (San Diego).

* These may be addressed thus: Hon. (Name), Congressman from California, The Capitol, Washington, D. C.

Further Comment Concerning S. 1620 and H. R. 6635

I.

Senator Wagner's Health Bill, S. 1620, according to the chairman of the subcommittee having it under consideration, will not be reported to the Senate during the current session of Congress.

II.

Senator Wagner has therefore given notice of *certain amendments that he proposes to offer to another bill, H. R. 6635*, now pending in the Senate and certain of enactment during the current session of Congress, in order to accomplish some of the objectives that he sought when he introduced his Health Bill. *One of these amendments proposes the establishment of a nation-wide medical service under the Social Security Board* that seems to go farther toward the centralization in Washington of medical supervision and control than anything proposed in the Health Bill and to afford an easier nucleus around which to organize an all-inclusive, nation-wide, Federal medical service. The proposed amendment referred to is as follows:

"Section 207. . . .

"(b) The (Social Security) Board may make provisions for furnishing of medical, surgical, institutional, rehabilitation, or other services to individuals entitled to receive primary disability benefits if such services may aid in enabling such individuals to return to gainful work. Such service shall be furnished by qualified practitioners through governmental and nongovernmental hospitals and other institutions qualified to furnish such services; provided that nothing shall authorize the construction of any such hospitals or other institutions; provided further, that expenditures for the purposes of this subsection shall not, in any fiscal year, exceed two percentum of the total amount which the Board estimates will be expended during such fiscal year for the payment of benefits under subsections (d) and (e) of Section 202. . . .

For convenience, the amendments stated above will be referred to hereafter as the "*National Medical Service Amendment.*"

III.

The primary parliamentary advantages that Senator Wagner may derive from the procedure that he has now adopted are as follows:

1. H. R. 6635, into which he proposes to incorporate his National Medical Service Amendment, stated above, has already passed the House of Representatives and is now pending before the Committee on Finance of the Senate. That committee did not participate in the hearings on Senator Wagner's Health Bill, S. 1620, and has no convenient access now to the evidence given before the Senate Committee on Education and Labor when that bill was under consideration by that committee, since that evidence has not yet been published. *In view of the pressure for an early adjournment of Congress, it is hardly possible that the Senate Committee on Finance will hold hearing on its own account on Senator Wagner's National Medical Service Amendment.* If it acts on the amendment, which it may or may not do, it may have to without full knowledge of the situation. If, without action by the committee, Senator Wagner offers his amendments on the floor of the Senate, the committee and the several members of it will obviously be at a disadvantage in debating the subject with Senator Wagner, who not only has given extensive personal consideration to the matter but who has at his immediate command the various officers of the Federal Government who seem to be interested in the establishment of such a service as Senator Wagner proposes.

2. If H. R. 6635, with Senator Wagner's National Medical Service Amendment incorporated in it, is enacted by the Senate and returned to the House of Representatives, the House, in view of the pressure now being brought for an early adjournment, will have scant time in which to study the new legislation. H. R. 6635, into which Senator Wagner proposes to incorporate his National Medical Service Amendment, deals primarily with old age and unemploy-

ment benefits. It was formulated by the Committee on Ways and Means of the House of Representatives after prolonged hearings, from which discussion and consideration of the health and medical aspects of the Social Security Act were excluded. On the return of the amended bill, the House might either vote to accept the Senate amendments or refer the entire bill to a conference committee. *Such a committee is made up of senators and representatives especially appointed for that purpose. Its deliberations are in executive session and its report is privileged and not open for amendment.* Because of those facts and because of the probably more extensive acquaintance that the Senatorial members of such a committee would have with the subject matter of Senator Wagner's National Medical Service Amendment, because of the consideration given to it in the Senate Committee on Education and Labor and possibly on the floor of the Senate, their views might carry greater weight than those of the conferees from the House of Representatives, who had had no time to consider the subject.

IV.

In Senator Wagner's Health Bill, S. 1620, it is proposed that the Social Security Board be authorized to cooperate with the several states in establishing state medical services. Such authority carries with it authority on the part of the Board to determine whether any proposed state medical service is or is not satisfactory. If the Social Security Board determines that it is not satisfactory, then the state is not to receive Federal aid. If Federal aid is granted, and if at any time the Social Security Board determines that the operations of the state service are not in accordance with the agreed plan, Federal aid may be withdrawn. Obviously, under such legislation the Social Security Board might easily impose on the several states any form of state medical service that it favored, under penalty of denial of Federal financial aid if the state set up a service of which the Board did not approve.

Under the national medical service proposed by Senator Wagner's amendment, the Board would be in supreme control throughout the states. The states would have no voice in the management of the proposed service. Neither would they be called on to pay any part of the cost. An examination of Section 202(d), proposed as an amendment by Senator Wagner, gives some idea of the extent of the service proposed. The amount to be expended for the maintenance of such services, as stated in the amendment itself, is vague, and whether it would, even under the most favorable conditions, cover the cost of an effective service, no one can tell. If it does not, Congress might be called on to authorize larger expenditures, or the medical corps throughout the country might be called on to render all necessary services for whatever amount might be available.

V.

Senator Wagner's proposed amendment to H. R. 6635 would set up, if enacted, a national medical service for the benefit of a limited group of employees of private industry throughout the entire United States. Excluded from the hypothetical benefits of that service would be: farmers and farm labor, domestic service, professional men and women, and a multitude of persons engaged in commerce, the arts, and trades on their own account. And yet the expenses of the service are apparently to be paid out of the general revenues of the country, to which every inhabitant contributes, either directly as a taxpayer or indirectly as a consumer. It requires no depth of insight to see that a revolutionary project of this kind requires more study and consideration than it can receive as a newly proposed amendment to a lengthy bill of which it is not an essential feature within the few days that now remain before the adjournment of Congress.

THE WAGNER NATIONAL MEDICAL SERVICE AMENDMENT TO H. R. 6635 SHOULD BE OPPOSED.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

COMMITTEE ON PUBLIC RELATIONS

Minutes

Minutes of the meeting held in the offices of the Association, Room 2004, 450 Sutter Building, San Francisco, Saturday, July 22, 1939, at 10:00 a. m.

1. Call to Order.

The meeting was called to order by Chairman Reinle, with the following members present: President Charles A. Dukes, President-Elect Harry H. Wilson, and the chairmen of the following committees: Roy E. Thomas, Committee on Health and Public Instruction; J. Norman O'Neill, Committee on Hospitals, Dispensaries and Clinics; Donald Cass, Committee on Industrial Practice; George G. Reinle, chairman, Committee on Medical Defense; John H. Graves, Committee on Medical Economics; George D. Maner, Committee on Membership and Organization; Dwight L. Wilbur, Committee on Postgraduate Activities; George H. Kress, Secretary-Treasurer.

Absent: Doctors A. R. Kilgore, chairman Cancer Commission, and J. B. Harris, chairman Committee on Public Policy and Legislation.

2. Minutes.

It was moved by Dwight L. Wilbur, seconded by J. Norman O'Neill, that the minutes of the June 17, 1939, meeting of the Public Relations Committee be approved. Carried.

3. Budget.

The Association's Secretary stated that the budget under which the work of the Department of Public Relations was carried out was that adopted at Pasadena on May 11, 1938, which permitted expenditures up to a total of \$3,000. Secretary Kress reported that allocations from the budget allowance to date included the following: \$81.89 for photographs of the Association's Cancer Exhibit at the Golden Gate Exposition for display at the Scientific Exhibit division of the recent Del Monte annual session; \$78.49 for transportation expense of the Committee's members; and minor postage and stationery expenses.

4. Basic Science Act.

Donald Cass, chairman of the Southern Subcommittee of the Basic Science Act presented his written report for the information of the members of the Committee on Public Relations. (For reference items, see minutes of Council and of Committee on Public Relations, CALIFORNIA AND WESTERN MEDICINE, July, 1938, pages 46 and 49.)

It was moved by Charles Dukes, duly seconded, that the report be held over for general discussion after presentation of the report of the Northern Subcommittee.

Dwight L. Wilbur, chairman of the Northern Subcommittee, presented the report of his committee, based on the model basic science act prepared by the American Medical Association.

Discussion was then had, with particular reference to the proposed Board and the subjects to be included in the examinations for qualifying certificates of the basic science board.

It was agreed that the subcommittees should proceed with their studies, along the lines of the submitted reports, and

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman, and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

Dr. Dwight Wilbur was delegated to present the tentative drafts to the legal counsel of the Association, Mr. Hartley Peart; and that a tentative report be made available for submittal at the next Council meeting.

It was moved by George Maner, seconded by Roy Thomas, that the Committee on Public Relations go on record as feeling that the time is expedient at the State election of November, 1940, to enact a basic science initiative, and that the committee recommend to the Council that this be considered. Carried.

5. WPA Procedures.

Secretary Kress stated that, in accordance with the action taken at the June 17 meeting of the Committee on Public Relations, he had notified Mr. Bartel Harvey of the WPA that he had been appointed as the Association's representative in Northern California to review the reports of the WPA with reference to an equitable distribution of medical care being furnished under the WPA's projects. Secretary Kress reported that his preliminary survey of the report showed that the division of work had seemingly been as equitable as could be expected under conditions existing.

George Maner reported that he had taken up the matter in Los Angeles and that the Los Angeles County Medical Association would act as the clearing house for the eight counties in Southern California; that the reports would be sent to the various county society secretaries and that they would then be returned to the Los Angeles County Medical Association, where a composite report would be prepared for submission to the WPA's southern representative. Doctor Maner stated that, to date, the distribution in Southern California appeared fairly equitable; taking into consideration the fact that in isolated communities, in many instances, medical service was limited to one or two doctors.

It was moved by Norman O'Neill, seconded by Dwight Wilbur, that Doctors Kress and Maner continue to serve in the WPA work until further instruction. Carried.

6. Wagner Health Legislation.

Secretary Kress stated that U. S. Senators and Representatives had been contacted and informed of the dangers in S. B. 1620 and H. R. 6635, known as the Wagner Health Legislation.

Secretary Kress suggested that marked copies of the July issue of CALIFORNIA AND WESTERN MEDICINE be sent to California Congressmen with an informative letter of transmittal.

It was moved by George Maner, seconded by Norman O'Neill, that the proposed letter be authorized. Carried.

7. Legislation.

Mr. Ben Read, at the suggestion of Doctor Harris, having been invited to attend the meeting, reported on the public health and medical bills submitted to the Legislature during the 1938-1939 session, recently adjourned. Mr. Read stated that a written report would be submitted.

8. Premarital Legislation—Doctor Lee's Letter.

The Secretary presented a letter from Dr. Russel V. Lee of Palo Alto, in which it was suggested that the physicians of California might agree to give examinations falling under the new premarital legislation without cost to persons examined.

After discussion of the subject and the principles involved, it was moved by Harry Wilson, seconded by George Maner, that the Committee inform Doctor Lee that it believed the members of the California Medical Association were in accord with the new law, but that, as regards gratuitous professional services to citizens coming under the provisions of the act, the same general principles would apply as in other lines of professional work, namely, that individual physicians, when called upon for services in-

volved, would be happy to take into consideration the financial background, making reductions in average fees, if conditions so indicated; and further, that the matter of fee rates, etc., was one for determination by individual physicians. Carried.

9. Dinitrophenol Law.

The felony penalty provided in the new dinitrophenol law, as printed in the July CALIFORNIA AND WESTERN MEDICINE, on page 7, was discussed and the Secretary was authorized to continue publicity in regard thereto.

10. Chiropractic Initiative.

Secretary Kress reported that the Chiropractic Initiative was now in the hands of the Attorney-General, awaiting decision on whether it should be given a place on the special November 7 election ballot, and that as soon as copies were available they would be sent to the component county societies for consideration.

11. Committee on Public Health Education.

President-Elect Wilson reported informally on the discussion that had taken place at the meeting of the Committee on Public Health Education, and stated that an informal letter would be sent to all members of the California Medical Association briefly outlining the plans of the new Committee on Public Health Education, brought into being by the House of Delegates' resolution at the Del Monte session. (June CALIFORNIA AND WESTERN MEDICINE, page 437.)

12. Malpractice Defense.

Discussion was had of the malpractice defense problem.

It was moved by Donald Cass, duly seconded, that committees consisting of Doctors Wilson, Maner, Nuttall, in the south, and Doctors Reinle and Van Den Berg in the north, study the problem and report on the procedures in vogue in the various districts. Carried.

13. Medical Libraries.

The Secretary reported that State appropriations for medical libraries had been discontinued. However, the University of California would continue to furnish library facilities to physicians. Secretary Kress stated a communication thereon, received from Dr. Chauncey Leake, would appear in the Letters department of the August issue of CALIFORNIA AND WESTERN MEDICINE.

14. Medical Broadcasts.

The Secretary reported on a recent conference with Dr. W. W. Bauer of the American Medical Association Bureau of Health Education, and that it might be possible to arrange for some broadcasts over the broadcasting stations of the Golden Gate Exposition.

15. A. M. A. News Press Releases.

For the information of the Committee, Doctor Kress stated that press releases, in the form of the weekly "A. M. A. News" pamphlets, were now being furnished to various newspapers throughout California in an effort to secure desirable medical publicity on the advances in scientific medicine.

16. Date of Meeting.

The date of the next meeting of the Committee on Public Relations was set for Sunday, August 27, 1939.

17. Adjournment.

Other items of an informative nature, having to do with public relations, were informally discussed, after which the meeting adjourned.

GEORGE G. REINLE, *Chairman*.
GEORGE H. KRESS, *Secretary*.

HEALTH INSURANCE IN AUSTRALIA IS DEAD*

As implied in a former letter, national insurance in Australia has retreated still further along its path to oblivion. The prime minister, Mr. Menzies, has officially stated that it is impossible to bring the scheme into operation on September 4, the date to which it was last postponed. Having been so strenuously opposed to the abandonment of the scheme several months ago as to force his resignation from the cabinet, Mr. Menzies no doubt feels it incumbent on him, now that he has been recalled to assume the duties of prime minister, following the death of Mr. Lyons, to attempt further to save the scheme. He has promised to ask parliament to set up a committee of members, with whom will be associated representatives of the medical profession and approved societies and the National Insurance Commission, "to see whether a practical scheme, in which all parties will cheerfully and patriotically coöperate, can be evolved." Appearances, however, are all against the continuance of national insurance. The National Insurance Commission's activities have been largely suspended, the approved societies hover in a state of uncertainty, the royal commission on doctors' remuneration has never been reconstituted since the death of its chairman and has not made a report, and so far there has been inability to arrive at a basis which would insure coöperation from the medical profession. From this it may reasonably be concluded that national insurance in Australia, as at present conceived, is dead.

PROFESSION WARNED BY NEW ZEALAND GOVERNMENT

National insurance, a much vexed question in Australia, has taken on a serious complexion in New Zealand. The social security act of 1938, which became operative in New Zealand April 1, 1939, makes available to every man, woman and child resident in that country certain benefits, which comprise, first, generous pensions and unemployment insurance, together with medical, hospital and maternity benefits, and the supply of medicine and appliances. Considerable powers have been included in the act to insure adequate services in some country areas that are sparsely populated or isolated. Supplementary benefits will be introduced as opportunity offers, covering such services as specialist and consultant, radiologic and laboratory, home nursing and domestic, optical and dental. There is immediate provision for the institution of a health education campaign, and the scope of medical research is to be extended. The prime minister, Mr. Savage, has stated that the professional standard of medical men and others giving service has been safeguarded; that care has been taken to insure that the personal relationship of a doctor with his patient is not disturbed; that all citizens are assured of the right to make a free choice of their doctors, and that every doctor will have an opportunity of participating in the service. Despite these assurances, and after the date on which the act was due to operate, the New Zealand branch of the British Medical Association has decided unanimously that the government's scheme for the provision of medical benefits under the act is inadequate and unacceptable and that its members are unable to coöperate in its administration. The members of the branch, it is officially stated, are solidly in favor of an attitude adopted previously by the association—complete opposition to the present scheme, which offers all the people part or limited medical service as against the association's strongly held view that a free and complete service should be provided only for those unable to provide it for themselves. Of a possible 750, only twenty-two doctors in New Zealand have accepted con-

* By its Australian correspondent, in *Journal of the American Medical Association*, July 8, 1939.

tracts with the government to provide services under the social security act. In reply to the decision of the British Medical Association branch, the prime minister has stated that the government in introducing this legislation had complied with the wishes of the people. Last year a general election was won almost entirely on the question of social security, the government being returned with an overwhelming majority. The government, therefore, would make the best arrangements possible to give effect to those wishes. The minister for health in New Zealand has stated that, if the medical profession under the leadership of the British Medical Association is determined to persist in its opposition, the government will have no option but to alter the whole basis of service and proceed reluctantly with the establishment of a state medical service to administer the benefits of the social security act. It was recognized that a state medical service would cause considerable disorganization among the medical profession, but the government wished to make clear at this stage the inevitable result of a policy of noncooperation and opposition.

The waters are troubled. The scheme has officially commenced operation, but deadlock persists between the government and the profession. At present maternity benefits are being provided by twenty-two practitioners and a small number of medical men attached to hospital staffs.—*Journal of the American Medical Association*, July 8, 1939.

CALIFORNIA STATE BOARD OF PUBLIC HEALTH*

The chief function of any public health department lies in the prevention and control of communicable diseases. The State Board of Public Health has maintained a policy that permits the provision at all times of expert technical assistance to local health departments whenever and wherever such assistance may be needed. The Board has never attempted to exercise arbitrary control of a local community except in emergencies, nor has it at any time attempted to set up a public health dictatorship in any portion of the State. It has always cooperated with local health authorities and has always rendered assistance whenever called upon. In many instances, when circumstances make it necessary, the Board institutes cooperative services upon its own initiative. Although given broad powers that enable it to control any human being, living or dead, it has never attempted to apply drastic measures that would limit the freedom of the individual unless such limitations were necessary for the protection of the public health.

Comparison With Other State Boards

Criticism is made of the State public health organization in California because it does not conform to a certain type of administration that has been adopted in New York, Pennsylvania and other eastern states. It is difficult to understand why California should be expected to establish a plan of organization identical with that of another state. So far as is known, only five large states out of the forty-eight have adopted the type of state public health organization recommended.

New York, Pennsylvania, and other states, many years ago, established state hospitals for the treatment of tuberculosis. Bills were introduced in the Legislature that would require state tuberculosis hospitals to be established in California. Such institutions would have been organized except for the opposition of the State Board of Public Health. The State tuberculosis hospitals in other states cost millions of dollars annually for their maintenance. The plan of subsidizing county hospitals in California has enabled the provision of the best of facilities for the treatment of tuberculosis and at a minimum of expense. Actually, the State Board of Public Health, through its pro-

gram in the control of tuberculosis, has saved the State many millions of dollars that might otherwise have been expended needlessly. California must consider local conditions, economic, racial and sociological, in the solution of its public health problems.

Criticism is also made to the effect that the State public health organization of California is lacking because California does not spend as much for public health administration as does Alabama. It must be remembered that California does not have a large colored population as does Alabama. The sociological conditions that prevail in the two states are not comparable. To be sure, California has racial problems to encounter such as those that exist in the Mexican population and in some of the Oriental groups. Nevertheless, the California record in the control of communicable diseases and the maintenance of public health is equal to that of Alabama and in many respects the record is bettered considerably. This has been accomplished without unnecessary expenditure of State funds and without placing a heavy burden upon the taxpayers of this State.

Tuberculosis

The control of tuberculosis in California is regarded as a remarkable achievement. No state in the Union provides better facilities for the treatment of its tuberculous citizens. Through cooperation with the counties, under provision of a State subsidy administered by the State Board of Public Health, more than 6,500 beds are maintained in the various counties for care of the tuberculous who are unable to pay for treatment. The California tuberculosis death rate has been reduced, under State auspices, from 218 per 100,000 population in 1906 to 60.6 per 100,000 population in 1938. In spite of the influx of Mexicans, who are particularly susceptible to tuberculosis, in spite of the hordes of advanced cases imported from other states, this enviable record has been achieved. The proponents of the bills to reorganize the State Department of Public Health make no mention of this truly remarkable achievement, but devote all of their energies toward insistence that more extended facilities be provided for the detection of cases in individuals throughout the State. In other words, it would seem that this group that opposes the State Board of Public Health would have the State health organization take over all local health departments in order that every case of tuberculosis in California might be discovered by representatives of the State health organization rather than the local health officers. It would be comparable for the State to carry on police activities for all communities of California and abolish all local police departments.

Venereal Diseases

The California State Board of Public Health organized in 1917 the first state bureau of venereal diseases that was ever established anywhere in the United States. This bureau functioned efficiently until 1920, when public interest in the control of venereal diseases waned and the Legislature refused to appropriate funds for the continuation of the bureau. The professors who oppose the State Board of Public Health criticize the Board because no direct State activities in the control of venereal diseases were undertaken by a special bureau during the period 1920 to 1937 when the Bureau of Venereal Diseases was reorganized immediately following the establishment of Federal social security funds for this purpose. It should be remembered that the State Board of Public Health is not able to carry on its activities without funds. Its employees must live and if the public does not provide funds for activities in the protection of its health such activities must cease. Whenever funds have been made available for the direct control of the venereal diseases in this State the Board has always exerted itself fully toward the establishment of a program in their control. This criticism of the Board is unwarranted and is without any factual basis for support. As a matter of fact, limited activities in venereal disease control

* In this issue, see on page 76. In July issue, see editorial on A. B. 2107, on page 1.

have been carried on continuously even though a special bureau for conducting the work was not existent.

It is believed that the California State Department of Public Health, as developed by the State Board of Public Health, constitutes an organization well adapted to the public health needs of the State. It would seem that consideration has been given to all essential factors and that the program established by the Board accomplishes adequate results in the maintenance of the public health.

SOME CALIFORNIA STATISTICS

In thirty years the California State Board of Public Health has:

Helped to reduce the typhoid death rate from 32 per 100,000 to 0.9 per 100,000.

Reduced the tuberculosis death rate from 218 per 100,000 to 60.6 per 100,000.

Reduced the diphtheria death rate from 12 per 100,000 to 1.5 per 100,000.

Reduced the infant death rate from 160 per 1,000 live births to 44 per 1,000 live births.

Reduced the maternal mortality rate from 12.7 per 1,000 live births to 3.3 per 1,000 live births.

And since 1926

Infant mortality rate for white race has been reduced from 47.9 to 36.4—(24 per cent).

Infant mortality rate for Mexicans has been reduced from 144 to 87.6—(39 per cent).

Infant mortality rate for all other races has been reduced from 66.4 to 54.3—(17 per cent).

SONOMA, SOLANO, NAPA, AND MARIN COUNTY MEDICAL SOCIETIES HOLD A JOINT MEETING

Members of the Sonoma, Solano, Napa, and Marin County Medical Societies held their annual mid-summer reunion at Sonoma Grove on Saturday evening, July 15, a large attendance being present. Dr. D. C. Oakleaf of the Sonoma society presided, in association with Presidents Harry H. Hensler of Marin, Ream S. Leachman of Solano, and Alexander H. McLeish of Napa County Medical Societies.

Councilor Henry S. Rogers of Petaluma acted as toastmaster, introducing the guest speakers: Charles A. Dukes, President of the California Medical Association; George G. Reinle, Chairman of the California Medical Association Committee on Public Relations; Association Secretary George H. Kress, and Mr. Ben Read of the Public Health League of California. Pertinent problems confronting organized medicine were discussed by the speakers, and much interest was shown. An excellent dinner, with the delightful wines of the district, was served.

GROUP MEDICAL CARE PLAN INCORPORATED IN MICHIGAN

Articles of incorporation for "Michigan Medical Service" were filed Friday with the commissioner of insurance by officials of the Michigan State Medical Society. Michigan Medical Service embodies the voluntary group medical care plan which is the result of ten years' study and work by the Michigan Medical Society. An enabling act in the 1939 legislature, to permit this type of nonprofit service to the people, was sponsored by the medical profession of this state. The incorporators of Michigan Medical Service are A. S. Brunk, Detroit; Henry R. Carstens, Detroit; Burton R. Corbus, Grand Rapids; L. Fernald Foster, Bay City; Wilfrid Haughey, Battle Creek; William A. Hyland, Grand Rapids; Henry A. Luce, Detroit; Vernor M. Moore, Grand Rapids; Ralph H. Pino, Detroit; Philip A. Riley, Jackson; Paul R. Urmston, Bay City.

COUNTY SOCIETIES

MENDOCINO-LAKE COUNTIES

The meeting of the Mendocino-Lake County Medical Society was called to order by President Robert B. Smalley, on June 17, at the Howard Memorial Hospital in Willits.

The following members were present: Doctors Babcock, Smalley, Cushman, Toller, Gericke, Cleland, Van Allen, Kirwin, Scudder, Perry, Bramkamp, and Wagner. The guest of the evening was Dr. Henry S. Rogers, District Councilor of Petaluma, who spoke of problems before the State Association. Doctor Rogers reviewed the actions taken in the State Legislature, with special reference to the Compulsory Health Insurance Bill; and in reporting on the Annual Convention at Del Monte, he further discussed the special assessment made at that time on active members. All members were urged to attend the district meeting to be held at Sonoma, July 15, 1939, when an election will be held for Deputy Administrator of California Physicians' Service for this district.

The late Dr. Samuel Rea, of Ukiah, who died on June 8, 1939, was eulogized by Dr. Raymond Babcock. A resolution to send a copy of the eulogy to Dr. Frank Makinson of the California Medical Association, and one to the family of Doctor Rea, was adopted.

A practical demonstration of the Neufeld method of typing of the pneumococci was given, and this was followed by the showing of a pneumonia film prepared by Doctor Bullowa of the Harlem Hospital. Both demonstration and film were made possible for the Society through the efforts of Doctors Babcock and Smalley.

Upon the invitation of Dr. H. O. Cleland, it was decided that the next meeting would be held August 19, at 8 p. m., at the County Hospital at Ukiah. The meeting was then adjourned.

DALLAS L. WAGNER, Secretary.

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SAN BERNARDINO COUNTY

The regular meeting of the San Bernardino County Medical Society was held in the San Bernardino County Charity Hospital on June 6, 1939. It was called to order by the President, Doctor Williams. About sixty members and guests were present.

Dr. Walter Pritchard made a few remarks regarding a morphin addict and the trick he used to obtain morphin; and he warned members to be on their guard against him.

Doctor Williams spoke briefly regarding a proposed public health nurse for the City of San Bernardino. Doctor Landon, City Health Officer, was not present, but it was felt the matter was a local problem, and not within the jurisdiction of the Society.

It was moved and seconded that the Secretary wire the Society's thanks to our State legislators, Swing, Andreas, and Corwin, for their support during the past session of the Legislature. Passed.

The following applications for membership were approved: Dr. Samuel Ching, Victorville, and Dr. Joel Gibbons, Barstow.

The address of the evening, on *California Physicians' Service*, was then given by Dr. E. Vincent Askey, Los Angeles, Assistant Medical Director of California Physicians' Service, and this was followed by remarks by Dr. C. L. Emmons, District Councilor, and President Williams.

Following his informal talk, Doctor Askey answered many questions regarding the new California Physicians' Service.

The meeting adjourned at 9:30 p. m., and after that refreshments were served. ARTHUR E. VARDEN, Secretary.

CHANGES IN MEMBERSHIP

New Members (17)

Hollis Layton Carey	<i>Butte County</i>
	<i>Fresno County</i>
G. G. Daggett	Harvey E. Starr
M. Kanai	
	<i>Imperial County</i>
Henry Forcher	Alfred Sand
	<i>Merced County</i>
Avery E. Sturm	Eugene E. Willison
	<i>Monterey County</i>
Kyoichi Iwasa	
	<i>Sacramento County</i>
A. A. Atkinson	Lewis Specker
	<i>San Bernardino County</i>
Samuel Ching	
	<i>San Diego County</i>
Harry Wallace Hartzell	Frank H. Robinson
Charles S. Marsden, Jr.	
	<i>Santa Clara County</i>
Lois P. Todd	
	<i>Sonoma County</i>
H. P. Howard	
	Transferred (1)
William G. Patton,	from San Joaquin County to San Bernardino County.

In Memoriam

Botsford, Mary Elizabeth. Died at San Francisco, June 18, 1939, age 74. Graduate of the University of California Medical School, San Francisco, 1896, and licensed in California the same year. Doctor Botsford was a retired member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

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Burke, Garry Richman. Died at Sonoma, June 20, 1939, age 44. Graduate of the University of Buffalo School of Medicine, 1918. Licensed in California in 1929. Doctor Burke was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Coulter, Herbert Mackay. Died at South Pasadena, June 16, 1939, age 62. Graduate of the University of Minnesota Medical School, Minneapolis, 1903. Licensed in California in 1904. Doctor Coulter was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

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Cross, William Walter. Died at Berkeley, July 12, 1939, age 66. Graduate of the Washington University School of Medicine, St. Louis, 1897, and licensed in California the same year. Doctor Cross was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Edson, Philips Josiah. Died at Pasadena, July 6, 1939, age 43. Graduate of the University of California Medical School, Berkeley, 1924. Licensed in California in 1925. Doctor Edson was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Mangan, Patrick Joseph. Died at San Francisco, May 31, 1939, age 74. Graduate of Cooper Medical College, San Francisco, 1896, and licensed in California the same year. Doctor Mangan was a member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

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Natzler, Adolf. Died at Los Angeles, July 4, 1939, age 47. Graduate of Ludwig-Maximilians-Universität Medizinische Fakultät, Munich, Bavaria, 1907. Licensed in California in 1935. Doctor Natzler was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Rea, Samuel Leroy. Died at Ukiah, June 8, 1939, age 65. Graduate of Cooper Medical College, San Francisco, 1896, and licensed in California the same year. Doctor Rea was a member of the Mendocino-Lake County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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OBITUARY

Mary E. Botsford, M. D.

1865-1939

On June 18, 1939, we lost a retired member of our Society in the death of Dr. Mary Botsford. Born in San Francisco March 25, 1865, Doctor Botsford attended the Presentation Convent, later graduating from the University of California Medical School in 1896. She was appointed to the staffs of the University of California and Children's Hospitals of San Francisco, served as contract surgeon in the Medical Corps of the United States Army during the war, represented the University of California at the Congress of Anaesthetists in England in 1926, and at the British Medical Association meeting in Canada in 1930.

During 1931 she was given her appointment as Clinical Professor of Anaesthesia in the University of California Medical School, and elected President of the Associated Anaesthetists of the United States and Canada at their Congress in New York City. She published a number of articles on anaesthesia, including "Anaesthesia in Urologic Surgery," 1927; "Anaesthesia in Infant Surgery," 1935; "Pre-anaesthetic Drugs," 1937; and others.

Like so many of us in the medical profession, Doctor Botsford rode a hobby. Her great devotion to gardening bringing her untold pleasure and relaxation throughout the years. She is survived by a niece, Mrs. Elizabeth Stanley, to whom we have extended our sympathy.

H. M. F. BEHNEMAN.

Parathyroid Tetany Yields to Recently Discovered Drug.—After all other methods of treatment had failed, a case of parathyroid tetany was dramatically brought under control by use of a recently discovered drug, dihydrotachysterol, H. M. Margolis, M. D., Pittsburgh, and Gilbert Krause, M. D., Braddock, Pennsylvania, report in *The Journal of the American Medical Association*.

Parathyroid tetany is a comparatively rare condition due to abnormal calcium metabolism following removal of the parathyroid glands. It occurs in about fifteen out of one thousand cases. Dihydrotachysterol is a new drug, still in the experimental stage, which may prove eventually to be a specific in its treatment.

The authors conclude their paper with the declaration that "the therapeutic effect of dihydrotachysterol in the control of parathyroid insufficiency in our case was not less dramatic than that of insulin in the control of diabetes."

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. FREDERICK N. SCATENA.....President
MRS. WILLIAM C. BOECK.....Chairman on Publicity

Official Notices

State Board Meeting.—The President, Mrs. Frederick N. Scatena, has called a meeting of the State Board of the Woman's Auxiliary to be held on Friday, September 15, 1939, at the Woman's Athletic Club, San Francisco. All presidents of county auxiliaries are invited to attend this meeting.

State Board members for 1939-1940 are: President, Mrs. Frederick N. Scatena of Sacramento; President-Elect, Mrs. A. E. Anderson of Fresno; First Vice-President, Mrs. Harry O. Hund of San Rafael; Second Vice-President, Mrs. Frank Baxter of Alameda; Recording Secretary, Mrs. G. Wendell Olson of Fullerton; Corresponding Secretary, Mrs. G. A. Spencer of Sacramento; Treasurer, Mrs. C. G. Stadfield of Los Angeles; Councilors-at-Large: Mrs. H. E. Henderson of Santa Barbara, Mrs. F. G. Lindemulder of San Diego, Mrs. Harry Oliver of San Francisco, and Mrs. William C. Boeck of Los Angeles.

District Councilors: Mrs. F. G. Lindemulder of San Diego for First District; Mrs. Horace H. McCoy of Long Beach for Second District; Mrs. Richard McGovney of Santa Barbara for Third District; Mrs. J. R. Walker of Fresno for Fourth District; Miss Julia Koenecke of Salinas for Fifth District; Mrs. Eugene Kilgore of San Francisco for Sixth District; Mrs. Charles Hall of Oakland for Seventh District; Mrs. Alvin A. Brown of Sacramento for Eighth District; and Mrs. Frank A. Lowe of San Rafael for Ninth District.

The chairmen of standing committees appointed from this group are: Membership and Organization, Mrs. Harry O. Hund; Program and Health Education, Mrs. Frank Baxter; Finance, Mrs. A. E. Anderson; Public Relations, Mrs. Harry Oliver; Editor and Publicity, Mrs. William C. Boeck; *Hygeia*, Mrs. H. E. Henderson; Mrs. F. E. Coulter of Santa Ana, Historian; and Mrs. Hobart Rogers of Oakland, Parliamentarian.

In Memoriam

We regret to announce the death of Mrs. A. A. Arehart, President of the Woman's Auxiliary to the Monterey County Medical Society. We shall long remember her smiling face as she took our registrations at the Convention, spoke her words of welcome at the first meeting, and added her bit to the hospitality that made us all feel at home at Del Monte.

Minutes of the Executive Committee of the Woman's Auxiliary to the California Medical Association*

The meeting of the Executive Committee of the Woman's Auxiliary to the California Medical Association was called to order at 9:45 p. m., April 30, 1939, at

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. William C. Boeck, State Chairman on Publicity, 712 North Maple Drive, Beverly Hills. Brief reports of county auxiliary meetings will be welcomed by Mrs. Boeck and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

* Minutes of meetings as printed contain only a digest or mention of certain major items.

Hotel Del Monte, in Del Monte, California, the President, Mrs. Clifford Andrews Wright, presiding. . . .

The Treasurer's Report was as follows:

Balance, Checking Account, April 30, 1939.....	\$ 981.26
Balance, Savings Account, April 30, 1939.....	1,060.67
Balance, Library Account, April 30, 1939.....	38.64
Total.....	\$2,080.57

. . . Mrs. Anderson moved that the Treasurer's Report be accepted as read. Motion seconded and carried.

The Membership Chairman, Mrs. A. E. Anderson, reported that two new counties have been organized: Ventura and Stanislaus. . . .

The Library report was read by the Secretary in the absence of Mrs. Arthur T. Newcomb. This report contained two propositions in which it was suggested to further the use of the Library.

MRS. G. WENDELL OLSON, *Recording Secretary.*

* * *

Pre-Convention Meeting of the Board of Directors of The Woman's Auxiliary to the California Medical Association

The Board of Directors of the Woman's Auxiliary to the California Medical Association was called to order by the President, Mrs. Clifford A. Wright, at 9:10 a. m., Monday, May 1, 1939, in the Tower Room at Hotel Del Monte, Del Monte, California. . . .

Reports.—Mrs. Lawrence M. Knox, Convention Chairman, reported on final details for entertainment of members and guests.

Balance in Treasury:

Checking Account	\$ 981.26
Savings Account	1,060.67
Library Fund	38.64

The Secretary then read the Auditor's Report, which is appended to these minutes. Mrs. Walker moved this report be accepted. Motion seconded and carried.

Reports of Standing Committees:

Finance.—Mrs. Frederick N. Scatena, read the proposed budget for next year which showed a decrease of last year, the total sum of \$1,190. Mrs. J. R. Walker moved that the budget be left as of last year, \$1,200. Motion seconded and carried.

Membership and Organization.—Mrs. A. E. Anderson contacted all counties not organized and organized. Asked organized counties to make an effort to increase their membership. Two new counties organized, Ventura and Stanislaus. The state shows a decrease of 9.7 per cent membership. Merced County greatest increase which is 150 per cent.

Program and Health Education.—Mrs. George Calvin contacted the chairmen of all counties. Sent outlines of programs to be followed. Fine reports from all counties. Programs from National, Regional, and State followed.

Editor and Publicity.—Mrs. Fred H. Zumwalt's report read by the Secretary.

Hygeia.—Mrs. Harold Trimble reported most successful year. Subscription increase of 50 per cent over last year.

Reports of District Councilors:

First District.—Mrs. F. G. Lindemulder visited Riverside and Orange Counties. Contacted San Bernardino County and auxiliary probably will be organized next year.

Second District.—Mrs. Horace H. McCoy, entire County of Los Angeles 1938 and 1939, 553 members with an average of 125 attendance at meetings. . . .

Mrs. Lawrence Knox moved that, after report of Councilor from the Second District, all reports of District Councilors and County Presidents be accepted and left to

be read in the House of Delegates. Motion seconded and carried.

Reports of Special Committees:

Library.—Mrs. Arthur T. Newcomb's report read by Secretary. The report was as follows: Had six calls for books and four for plays. Library has not been active. Books have depreciated in value from 20 per cent to 30 per cent in the last two years. Value of the library now about \$70 to \$85.

President's Announcements:

New Business.—Mrs. Lawrence Knox read a letter from Mr. Howard Adams, Sales Manager, Morning Milk Company, Stockton, California, in which he proposed a contest. Mrs. Scatena moved that we leave this matter up to the Advisory Council. Motion seconded and carried. . . .

Convention Rules:

Mrs. H. E. Henderson read the rules as follows:

1. All visitors are welcome to general meetings.
2. No newspaper reporters are admitted to meetings.
3. Accredited delegates and members of the Board only have the privilege of voting.
4. Debate is open to Delegates, Alternates, Members of the Board of Directors and Members-at-Large.
5. No member shall speak in debate more than twice on the same subject, or longer than three minutes, without the consent of the assembly.
6. Members must obtain the floor by giving name and the name of their auxiliary, before making a motion or speaking from the floor.
7. Delegates must be seated by districts.
8. Alternates shall not be seated with Delegates except when representing absent Delegates.

Recommendations:

Mrs. Zumwalt made the following recommendations:

1. That each county in rotation edit the *Courier* for one year.
2. That each county take care of its own mailing of *Courier*.
3. That each county have Secretary send in names of new officers as soon as elected.
4. That each county president make her appointments as soon after election as possible and send such information to State Secretary.

Mrs. Scatena moved that the first recommendation be accepted and referred to the assembly for final action. Motion seconded and carried. Mrs. Anderson moved that the second recommendation be presented from the Board to be read at the House of Delegates and turned over to the new Board. Motion seconded and carried.

Mrs. A. T. Newcomb made the following recommendation:

That all books belonging to the State Library will be given intact to the Los Angeles County Medical Library as a memorial for the late Dolores Barrow.

Mrs. Scatena moved that the Board approve Mrs. Newcomb's recommendation and refer it to the assembly for final action. Motion seconded and carried.

The President recommended to the Board the Constitution and By-Laws of Ventura County which she had received. Mrs. A. E. Anderson moved that the Constitution be accepted as corrected by the Parliamentarian. Motion seconded and carried.

Nominations for Nominating Committee:

Mrs. Scatena nominated Mrs. Hund.

Mrs. Walker nominated Mrs. Markthaler.

Mrs. Scatena moved that the nominations be closed. Motion seconded and carried. The nominees were unanimously elected.

Mrs. Hund withdraws as Chairman of the Nominating Committee and Mrs. Anderson nominated Mrs. Markthaler

and Mrs. Hund will serve as the second member from the Board.

Minutes:

The Secretary read the minutes of this meeting, which were accepted as read.

Mrs. Trimble reported that the proposed amendment to Section 1 of Article 9 of the Constitution of the Woman's Auxiliary to the California Medical Association was forty-five days short of becoming effective. Therefore, will be given to the new Board.

The meeting adjourned.

Respectfully submitted,

MRS. G. WENDELL OLSON, *Recording Secretary.*

* * *

Tenth Annual Convention: Woman's Auxiliary to the California Medical Association

The first meeting of the Tenth Annual Convention of the Woman's Auxiliary to the California Medical Association was called to order at 10:00 a. m., May 2, 1939, at Del Monte Lodge in Del Monte, by the President, Mrs. Clifford A. Wright.

The Invocation was offered by Reverend S. C. Potter; the address of welcome was given by Mrs. A. A. Arehart of Monterey; and the response was given by Mrs. William W. Roblee of Riverside County.

In Memoriam:

Mrs. Thomas E. Gibson, San Francisco, gave a beautiful tribute to those who have passed away during the past year. A candle ceremony completed the services with a violin solo by Mrs. Milton Shutes, accompanied by Mrs. Elenau Breadwell.

IN MEMORIAM

Alameda County: Mrs. R. B. Pensotti, Mrs. Robert Glenn, Mrs. John Stark. Los Angeles County: Mrs. Henry B. Stehman (Pasadena). San Francisco County: Mrs. Martin, Mrs. Otto Pfeuger.

Roll Call:

By the Secretary, Mrs. G. Wendell Olson.

Convention Chairman:

Mrs. Lawrence M. Knox gave final details of the entertainment plans.

Credentials:

Mrs. E. Eric Larson reported following registrations (as of 9:00 a. m., Tuesday):

Officers and State Board Members.....	16
Delegates	56
Alternates	16
Members and Guests.....	131
Total.....	219

REPORTS OF OFFICERS

Report of President:

Mrs. A. E. Anderson, First Vice-President, took the chair while the President, Mrs. Clifford A. Wright, gave her report. She gave a general survey of the work of the auxiliaries, throughout the year that she visited. In closing left this message that encouraging friendship among the profession and their families is an important part of our work, and that we should be ambassadors of good will and further a kindly feeling among the laity and medical men. Mrs. Hobart Rogers of Oakland moved the report be accepted with deep appreciation and that Mrs. Wright be given a rising vote of thanks. Motion seconded and carried.

Corresponding Secretary:

The report of Mrs. Eric Larson was read. Mrs. Charles Hall of Oakland moved to accept the report. Motion seconded and carried.

Treasurer:

Mrs. Harry O. Hund read her report which showed balances: In checking account of \$981.26; in savings account of \$1,060.67; in library fund of \$38.64.

The report was ordered filed.

Auditor:

The report of the Auditor, which was read by the Secretary, showed that the balance in the bank of San Rafael coincided with the Treasurer's report. Mrs. J. R. Walker moved that the report be accepted. Motion seconded and carried.

Membership and Organization:

Mrs. A. E. Anderson reported that there are twenty-four counties now organized of which two were organized this year. Fifteen counties unorganized. State showed a decrease of 7 per cent membership. Merced County showed greatest increase, 157 per cent. Mrs. Hyman Miller moved the report be accepted. Motion seconded and carried.

Program and Health Education:

Mrs. George Calvin reported on her year's work. Had fine reports from all counties. Program outline followed as given by National, Regional and Mrs. Colby's of last year. Thanks to county program chairmen for splendid coöperation. Found that 20 per cent of meetings were social, fifty per cent self-educational, and 20 per cent public educational. Mrs. Milton Shutes moved that the report be accepted. Motion seconded and carried.

Finance:

Mrs. Frederick N. Scatena read the budget proposed for the coming year of 1939-40.

Stationery	\$ 100.00
Stenographer and Clerical.....	125.00
Postage	60.00
Telephone and Telegraph.....	35.00
Convention	150.00
Editor	350.00
President's Discretionary Fund.....	275.00
Membership and Organization.....	100.00
Miscellaneous	30.00
Total.....	\$1,190.00

Dues:

Mrs. Scatena moved that the State dues for the year 1939-40 be \$1.00 as in previous years.

Public Health Activities:

Mrs. J. C. Geiger reported that six out of twenty-three responded, all doing splendid work. Mrs. Scatena moved to accept the report. Motion seconded and carried.

Editor and Publicity:

Mrs. Fred Zumwalt's report was read by the Secretary. The financial report showed total receipts of \$515, total expenses of \$460.35, leaving a balance of \$54.65 plus 14 cents interest, a total of \$54.79. Mrs. A. A. Alexander moved to accept the report. Motion seconded and carried. Mrs. Harry O. Hund moved that the balance of \$54.79 be deposited to the State's account. Motion seconded and carried.

Hygeia:

Mrs. Harold Trimble, *Hygeia* chairman, gave a report of her work and how successful Mrs. Hobart Rogers' plan was to encourage the sale of *Hygeia*. Total in the *Hygeia* account to date, 1938-1939, is 800, last year at this time 527 subscriptions, showing an increase of 50 per cent. Mrs. Carl Benninghoven moved that the report be accepted. Motion seconded and carried.

Report of Special Committee:

Library. In the absence of Mrs. A. T. Newcomb, her report was read by the Secretary. Library has not func-

tioned as anticipated. To date only six calls for books and four for plays; \$105.84 spent for books since 1926 to date; depreciation in value from 20 per cent to 30 per cent in two years; estimated \$75 to \$85 value of library at present. Mrs. Henderson moved that the report be accepted. Motion seconded and carried.

Recommendations from the State Board:

1. The Secretary read Proposition Number 1, recommended by the Board, from Mrs. Newcomb. Mrs. H. E. Henderson moved that we accept Proposition Number 1 for Los Angeles to reimburse the counties for money given to the library. Mrs. Hund moved that the balance of \$38.64 in the library account be closed and applied on reimbursing the counties. Motion seconded and carried.

2. The Secretary read the recommendation to the Board from Mrs. Zumwalt. Mrs. Hobart Rogers moved that this recommendation be referred to the new Board for action. Motion seconded and carried.

President's Announcement:

The President announced the Resolutions Committee would be composed of Mrs. Frank Baxter, Oakland; Mrs. Hobart Rogers, Oakland; Mrs. Lawrence Knox, Berkeley.

Nominating Committee:

The President announced that Mrs. Edward Markthaler, Santa Barbara, and Mrs. Harry O. Hund, San Rafael, had been elected by the Board as members of the Nominating Committee and asked for nominations from the floor for three other members:

Mrs. William C. Boeck named Mrs. William H. Leake, Los Angeles; Mrs. Frank Baxter named Mrs. Thomas Clark, Alameda; Mrs. G. A. Spencer named Mrs. Norris Jones, Sacramento. Mrs. George Calvin moved that the nominations be closed. Motion seconded and carried.

The meeting adjourned, to be followed by a luncheon in honor of the President, Mrs. Clifford A. Wright.

Respectfully submitted,

MRS. G. WENDELL OLSON, *Recording Secretary.*

At luncheon the Doane Trophy was presented to Merced County for an increase of 157 per cent in membership.

The second meeting of the Tenth Annual Convention of the Woman's Auxiliary to the California Medical Association was called to order at 9:50 a. m., May 3, 1939, at Del Monte Lodge in Del Monte by the President, Mrs. Clifford Andrews Wright.

Credentials:

Mrs. E. Eric Larson, chairman for Credentials, reported the following registration of 5 p. m., Tuesday afternoon, May 2, 1939: Officers and State Board members, 13; delegates, 54; members and guests, 187; total, 254.

Minutes:

The Secretary, Mrs. G. Wendell Olson, read the minutes of the meeting of Tuesday morning, which were accepted after being corrected.

Report of Historian:

Mrs. Frank Edwin Coulter report on file.

Councilors-at-Large:

Due to the absence of the Councilors-at-Large, Mrs. T. A. Card, Mrs. A. T. Newcomb, Mrs. R. S. Kneeshaw, and Mrs. Fred A. Zumwalt, Mrs. A. A. Alexander moved that the report of the Councilors-at-Large be placed on file. Motion seconded and carried.

Reports of District Councilors:

Mrs. Charles Hall moved that the reports be accepted as a whole. Motion seconded and carried.

Mrs. A. A. Alexander moved that the reports be accepted as read and placed on file. Motion seconded and carried.

County Presidents:

Mrs. William Boeck moved that the reports of the presidents of county auxiliaries be accepted with appreciation for the great work by the counties. Motion seconded and carried.

Resolutions:

The Resolutions Committee, consisting of Mrs. Frank Baxter, chairman, Mrs. Hobart Rogers, and Mrs. Lawrence Knox, presented the following report:

Resolved, That the Woman's Auxiliary to the California Medical Association adopt an amendment providing that the widows of members in good standing in the State Medical Association be permitted to affiliate with any County Auxiliary where they reside in California.

After discussion, it was moved by Mrs. Frank Baxter that this resolution be referred to the incoming Board. Motion seconded and carried.

Resolved, That the Woman's Auxiliary to the California Medical Association in convention assembled, extend its sincere thanks and most grateful appreciation:

1. To Mrs. Lawrence M. Knox and her committee, also friends of the ladies of Monterey County Auxiliary who are not members of the Association or the Auxiliary, for their untiring efforts and their very gracious manner, who have done much for the success of the session and pleasure of the members and their guests.
2. To Mrs. H. N. Yates, Chairman of the Musicales for the second time, who with her selected groups of artists, Mrs. Gladys Steele, Iris DeLuce, John Teil, and Mischa Myers, contributed to the success of the very delightful evening of music and dancing.
3. To the management and staff of the Hotel Del Monte and Del Monte Lodge for their courtesies.
4. To Rev. Stewart C. Potter of Monterey who asked God's blessing on our sessions.
5. To the Council of the California Medical Association for their support and coöperation throughout the year.
6. To Dr. George H. Kress for courtesies in the publication of the Auxiliary News in CALIFORNIA AND WESTERN MEDICINE.
7. To Monterey Herald for its coöperation and able presentation of material pertaining to our annual meeting.
8. To Mrs. Clifford A. Wright, our State President, whose gracious manner which has endeared her to every member of the organization, and to the other members of our State Board who have so ably carried their duties to a successful completion.
9. To Mr. Alexander Eddle for conducting a most instructive and interesting garden tour.
10. To Mr. Theodore Clark as guide to many historic sights in Monterey.
11. That we express our appreciation to Mrs. F. H. Zumwalt for her splendid work in editing the *Courier* for the past two years and tender our regrets that she found it impossible to attend this meeting. Therefore, be it

Resolved, That copies of these resolutions be sent by the Recording Secretary of the Convention to the above named to whom we are so deeply indebted, and a copy to be placed on file.

Signed:

Mrs. Frank Baxter
Mrs. Hobart Rogers
Mrs. Lawrence Knox.

Mrs. Frank Baxter moved that these resolutions be adopted. Motion seconded and carried.

Report of Nominating Committee:

Mrs. L. E. Markthaler, the chairman of the Nominating Committee, read her report as follows:

President-Elect, Mrs. A. E. Anderson, Fresno; First Vice-President, Mrs. Harry O. Hund, San Rafael; Second Vice-President, Mrs. Frank Baxter, Alameda; Recording Secretary, Mrs. G. Wendell Olson, Fullerton; Treasurer, Mrs. C. G. Stadfield, Los Angeles.

Councilors-at-Large: Mrs. H. E. Henderson, Santa Barbara; Mrs. F. G. Lindemulder, San Diego; Mrs. Harry

Oliver, San Francisco; Mrs. William C. Boeck, Los Angeles.

There were no nominations from the floor.

Mrs. Harold Trimble moved that the nominations be closed. Motion seconded and carried. Mrs. Clifford A. Wright declared them duly elected.

District Councilors:

The President called for the nominations for District Councilors.

Third District: Mrs. H. E. Henderson nominated Mrs. R. McGovney, Santa Barbara.

Fifth District: Mrs. M. D. Baker nominated Miss Julia Koenecke, Salinas.

Sixth District: Mrs. H. Oliver nominated Mrs. Eugene Kilgore, San Francisco.

Seventh District: Mrs. Frank Baxter nominated Mrs. Charles Hall, Oakland.

Eighth District: Mrs. G. A. Spencer nominated Mrs. Alvin A. Brown, Sacramento.

Ninth District: Mrs. Bernard J. Conroy nominated Mrs. Frank A. Lowe, San Rafael.

Since there was only one candidate for each office, they were elected.

Presentations:

Mrs. Clifford A. Wright presented Mrs. Frederick N. Scatena, President for 1939-1940, who in turn presented her Corresponding Secretary, Mrs. G. A. Spencer. Mrs. Wright introduced each of the newly elected officers and Councilors-at-Large.

Credentials:

The Secretary read the final report on registrations: Wednesday morning, May 3, 1939—Officers and State Board members, 14; delegates and alternates, 59; members and guests, 190; total, 263.

Minutes:

The Secretary read the minutes of this meeting, which were approved as corrected.

The President thanked the Convention chairman, Mrs. Lawrence M. Knox, for her untiring efforts in making this Convention a success, and Monterey County for its hospitality, and then she expressed appreciation for the coöperation that all officers had given her.

Before declaring the adjournment of the Tenth Annual Convention a telegram was read by the Secretary from the Board of Directors of the Pasadena Branch of the Woman's Auxiliary to the Los Angeles County Medical Association.

Mrs. A. A. Alexander moved that the Secretary be given a rising vote of thanks for her untiring work. Motion seconded and carried.

There being no further business, the Tenth Annual Convention adjourned.

Respectfully submitted,

MRS. G. WENDELL OLSON, *Recording Secretary*.

* * *

Minutes of the Post-Convention Board Meeting

The first Post-Convention meeting of the Board of Directors of the Woman's Auxiliary to the California Medical Association met at Del Monte Lodge, Del Monte, California, May 3, 1939, after luncheon honoring the incoming President, Mrs. Frederick N. Scatena. . . .

The constitutional quorum of eleven being present, the meeting proceeded. . . .

The following appointments were made: Mrs. Harry O. Hund, chairman, Membership and Organization; Mrs. Frank Baxter, chairman, Program and Health Education; Mrs. A. E. Anderson, Finance; Mrs. Harry Oliver, chairman, Public Relations; Mrs. Eugene Kilgore, chairman,

Public Health; Mrs. William Boeck, Editor and Publicity; Mrs. H. E. Henderson, chairman, *Hygeia*; Mrs. F. E. Coulter, Historian; Mrs. Hobart Rogers, Parliamentarian.

Mrs. Harry Hund moved that the *Courier* be edited for the year 1939-1940 within the budget of \$350. Motion seconded and carried.

Mrs. A. E. Henderson moved that the letter concerning the Morning Milk contest be tabled until the September Board meeting, and that Mrs. Lawrence M. Knox be thanked for her interest in the project. Motion seconded and carried.

Amendment:

Mrs. Frank Baxter then moved that the resolution presented by the Woman's Auxiliary of Sacramento, providing that widows of members in good standing in the State Medical Association be permitted to affiliate with any county auxiliary where they reside in California, be referred to the Revisions Committee. Motion seconded and carried.

The Secretary read a resignation from Mrs. F. G. Lindemulder, First District Councilor, because of her election as Councilor-at-Large. Mrs. Hund moved to accept the resignation. Motion seconded and carried. Mrs. W. W. Roblee, Mrs. Harry Huffman, and Mrs. Erwin Miller were presented as possible candidates for First District Councilor. Mrs. Lindemulder moved that this office be left up to the President to fill. Motion seconded and carried.

The President asked that all business which is carried on at Board meetings be confidential. She announced that a Board meeting will be held in the Woman's Athletic Club, San Francisco, September 15, 1939.

There being no further business, the meeting adjourned.

Respectfully submitted,

MRS. G. WENDELL OLSON, *Recording Secretary*.

Component County Auxiliaries

Orange County

The members of the Woman's Auxiliary to the Orange County Medical Society entertained their husbands at a Swedish Smorgasbord on June 29, 1939, in the new garden house of Dr. and Mrs. G. Wendell Olson, 219 Buena Vista Drive, Fullerton. Swedish colors, blue and yellow, were used in the flower arrangements and the tables were spread with Swedish peasant cloths. During the dinner hour Miss Ethel Campbell played her accordion, which was greatly enjoyed by the fifty-nine members and guests present.

This event closes the activities of this Auxiliary until next October.

MRS. G. WENDELL OLSON, *Publicity Chairman*.

Advocate Strict Isolation of All Pneumonia Patients.

—Isolation of all cases of pneumococcal pneumonia is advocated by Julien E. Benjamin, M. D., James M. Ruegger, M. D., and Fanny A. Senior, Cincinnati, in their article, "Cross Infection in Pneumococcal Pneumonia," in *The Journal of the American Medical Association*.

Although the disease has long been classed as contagious, the authors say, it rarely is reportable. The general failure to segregate or isolate patients with pneumonia implies that its contagiousness has been underestimated.

"It is essential that each patient be segregated in a cubicle and not treated in the open ward," the authors maintain. "Physicians and nurses should be required to observe the same precautions in caring for such patients as are usual in contagious disease wards.

"The wearing of gowns and masks and the washing of hands after each examination or treatment should be strictly enforced. Visitors should likewise be protected. Since these regulations have been adopted at the Cincinnati General Hospital, we have been convinced of their merits."

In support of their statements, the authors cite several instances of cross infection.

"During the peak of the economic depression," they state, "there existed in Cincinnati two bureaus for the care of homeless men, one for the local inhabitants and a federal one for transients. The inmates slept in large dormitories. Overcrowding was one of several unfavorable factors. Epidemics of Type I pneumonia were encountered in each dormitory.

"The outbreak occurred in the two buildings, at some distance from each other, suddenly and at about the same time, and it stopped equally suddenly. Two deaths occurred in each group.

"The following November there was another outbreak at the Federal Bureau. There were in residence at the time several hundred men. Within one month nine patients with pneumonia were admitted to the hospital.

"The actual number of men who had infections of the respiratory tract is not known, but that many had colds is definitely established. Colds may be a factor which determines the transfer and establishment of Type I and Type II pneumococci from the infected to the uninfected person.

"There is abundant evidence that hospital contacts are frequently infected from pneumonia sufferers. It has been shown that about 2 per cent of the hospital contacts contracted the same pneumococcal disease. This of itself would justify segregation of infected persons. Fifteen patients, treated in the medical wards of the Cincinnati General Hospital in two years, definitely contracted the disease from other patients in the same ward who had the same types of pneumonia.

"The following winter, after rigid precautions had been enforced, only two patients had pneumonia which could be attributed to cross infection."

A case of a doctor who contracted pneumonia from a patient is cited and also two cases of infection contracted by laboratory workers.

"About 20 per cent of the immediate family contacts with a pneumonia patient treated at home harbor the same strain of pneumococci in the nasopharynx," the three doctors state. "The disease actually develops in a certain number of these carriers."

They conclude that "each patient with pneumonia should be regarded as a focus for the spread of the infection. The care of each patient should include those measures which have been found serviceable in the treatment of other communicable diseases."

Relief of Pain of Childbirth.—Hope of still better methods for the relief of pain of childbirth is found in the enthusiasm and great interest of the medical profession in this problem, *The Journal of the American Medical Association* for June 24 declares in an editorial.

"Ideal methods for relief of pain of childbirth have been the goal of obstetricians since ancient times," the editorial says. "Inscriptions and drawings left by early Egyptians indicate that they tried unsuccessfully. Less than a century has elapsed since Sir James Y. Simpson of Edinburgh first used an anesthetic, a few drops of chloroform, for this purpose."

After discussing the various methods of producing obstetric amnesia (temporary loss of memory) and analgesia (absence of sensibility to pain) and certain objections that have been offered to their use, the editorial says:

"The ideal drug or combination of drugs has not yet been discovered. Perhaps in the hands of masters all of the methods mentioned are essentially safe for both mother and baby. The skilled obstetrician, at least, has the opportunity to choose the particular technique best suited to each case. The enthusiasm and great interest in this problem offer hope of still better methods."

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, New York, June 10-14, 1940. Olin West, M. D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

California Medical Association, Hotel Del Coronado, Coronado, May 6-9, 1940. George H. Kress, M. D., Secretary, 450 Sutter Street, San Francisco.

Nevada Medical Association, Reno, September 22 and 23, 1939. Horace J. Brown, M. D., Secretary, P. O. Box 689, Reno, Nevada.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of August is as follows: Thursday, August 3—KECA, 9:45 a. m., The Road of Health.

Saturday, August 5—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, August 10—KECA, 9:45 a. m., The Road of Health.

Saturday, August 12—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, August 17—KECA, 9:45 a. m., The Road of Health.

Saturday, August 19—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, August 24—KECA, 9:45 a. m., The Road of Health.

Saturday, August 26—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, August 31—KECA, 9:45 a. m., The Road of Health.

Treadway to Survey Care of Mental Patients in State.

Announcement that Dr. Walter Lewis Treadway, assistant surgeon-general of the United States Public Health Service, has arrived to spend a year at the University of California Medical School for the purpose of making an exhaustive survey of the care of mental patients both at the medical school and throughout the State, was recently made by President Robert Gordon Sproul.

The survey is part of an examination of all of the country's major public health facilities and activities that the Public Health Service is making in the interests of greater integration and effectiveness. As the chief psychiatrist in the service and one of the most outstanding authorities on mental disorders and treatment in the country, Doctor Treadway has been given the task of directing the psychiatric phases of the general examination.

At the medical school Doctor Treadway is expected to make a special study of the advances that have been made in mental case care and treatments in the school's psychiatric division in the past few years.

Doctor Treadway is a graduate of the Barnes Medical College, where he received his M.D. in 1907. Before entering government service he was assistant physician in the Jacksonville State Hospital, Illinois, and clinical psychiatrist in the Illinois Psychiatric Institute.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Pacific Coast Society of Obstetrics and Gynecology.—

The dates for the next meeting of the Pacific Coast Society of Obstetrics and Gynecology have been changed from October 4-7, 1939, to November 8-11, 1939, the meeting to be held in Portland, Oregon. For information, write to T. Floyd Bell, M.D., Secretary-Treasurer, Oakland, Calif.

Special Meeting July 13.—A special meeting of the San Francisco Chapter of the Public Health League of California was held on Thursday, July 13, 1939, at the Veneto Restaurant, corner of Mason and Bay streets, San Francisco. Executive Secretary, Ben Read gave a report of the recent legislative activities at Sacramento.

Charles A. Noble, Jr., M.D., secretary, reported an excellent attendance.

Gonadotropic Hormone Produces Giant Rat Litters.

The gonadotropic hormone taken from pregnant mares and injected into immature rats brings these animals to sexual maturity within three days and causes them to produce living litters far larger than those of untreated rats.

This has been shown in experiments conducted on the Davis campus of the University of California by Dr. Harold H. Cole, associate professor of animal husbandry.

One rat in Doctor Cole's collection produced twenty-three living young, while another had thirty-three implanted fetuses. Both these rats had been injected with the hormone. The average litter among the injected rats was seventeen. The average litter for the untreated rats was only eleven, while the largest living litter produced by these rats was nineteen.

Both the purified extracts of the hormone and the pregnant mare serum which contains the hormone have been used. Studies of the effect of this hormone on rats are expected to lead to new discoveries concerning animal reproduction and possibly open a new method of treating animals whose fecundity is low.

American Congress of Physical Therapy.—The eighteenth annual scientific and clinical session of the American Congress of Physical Therapy will be held September 5, 6, 7, and 8, 1939, at the Hotel Pennsylvania, New York City. Preceding these sessions the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians—August 30 and 31, September 1 and 2.

Physicians are urged to plan their vacation for these periods and bring their families to New York for the World's Fair. Ample time has been provided for, during the convention, to visit the Fair and to enjoy the various activities of America's metropolis.

The instruction seminar should prove of unusual interest to physicians and technicians. The clinics, which comprise half of the schedule, make this course outstanding for its practical value. As in the past, outstanding clinicians and teachers will participate. Registration is limited to one hundred and is by application only. For information concerning the seminar and preliminary program of the convention proper, address American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

Child Nutrition Seen as Nation's Great Investment.—All work and no play may make Jack a dull boy, but even a program which includes large doses of both will not produce a well-educated child unless he is well and wisely fed, declares Dr. Richard Arthur Bolt, director of the Cleveland, Ohio, Child Health Association, who is in Los Angeles as a visiting member of the University of California Summer Session faculty.

"A hungry and sick child cannot be educated properly," Doctor Bolt points out. "Our schools have found it necessary to finance extra feeding, an extremely important measure at present and one which should be continued. Any investment put into feeding our school children will pay ample dividends in the next few years. Good nutrition is the basis of all health measures in the growing child. Food of the right quality is relatively cheap now, and a balanced diet comparatively easy to assemble."

The well-fed child's daily diet should include at least one quart of good milk, a fresh greens and vegetable salad, tomatoes, whole grain cereal, butter and eggs, declares Doctor Bolt.

U. C. Medical School Gives Wide Service.—The Medical School of the University of California stands on the San Francisco campus of the University on Parnassus Avenue, stretching from First to Fourth Avenue. It is the major activity of the University Medical Center, where the Schools of Medicine, Dentistry, Pharmacy and Nursing carry on their activities in close proximity with the University Hospital, supplying 83,000 patient-day services, and the out-patient department, to which 185,000 visits are made each year by 35,000 individual patients, and the Hooper Foundation for Medical Research.

The purposes of the Medical School are to train effective physicians, fully competent to serve the sick and injured and also as a hospital to give aid to invalids and injured who are unable to pay physicians.

There is also the duty to develop new knowledge and to evaluate old knowledge about health and disease and to make this knowledge available through instruction, to medical students, undergraduate and postgraduate, and by publication to the scientific world and when possible, to the lay public.

Referred Service

As a state university medical school California also provides a referred service open to all physicians in the State. To this service the doctors send 3,104 persons every year for consultation. These are patients with obscure or complicated diseases, whom their physicians refer for aid to the various specialists of the University's medical and dental faculty. Such referred patients must be certified by their physicians as unable to pay for private professional aid.

The University Hospital of 330 beds was built in 1917 from funds donated by generous friends of the University. The out-patient building was built in 1933 and is one of the most modern institutions of its kind. It houses various out-patient clinics devoted to medicine and surgery and to their specialties, also the operative and the administrative units of the Schools of Dentistry and of Nursing as well as the Crummer Library of Medical History and a department of physiotherapy with a pool for the treatment of crippled children.

The University Hospital is too small to supply all the needs for student training but the staffs of the medical schools are commandeered to give the medical and surgical services needed by patients of the great San Francisco Hospital. Here, through the coöperation of Director of Health Dr. J. C. Geiger, medical students of the university may follow ministrations and teaching of their professors. . . —*San Francisco News*, June 17.

Pacific Association of Railway Surgeons.—The Thirty-seventh Annual Convention will be held in San Francisco on September 29 and 30, with headquarters at the Clift Hotel. As usual, the scientific sessions will be held on Friday and Saturday mornings. The customary luncheons and banquet will greet you. For program and information, write to W. T. Cummins, M.D., Secretary, in care of Southern Pacific Hospital, San Francisco.

Teaching Hospital Safe Place for Maternity Cases.—An intensive study of births over an eleven-year period "very forcefully shows that a well staffed and managed teaching hospital, using conservative methods of treatment and checking results from time to time by efficiency studies, is an extremely safe place in which to have a baby." This is stated in a paper issuing from the division of obstetrics and gynecology of the University of California Hospital.

The report is a review of 10,708 obstetrical cases in the hospital, and shows maternal mortality rates which are much lower than the ten-year period preceding that covered in the study. The chief feature noted in the study is that a remarkably low mortality attended the method of Cesarean section developed in the hospital and the very free use of blood transfusions now used as preventive measures and not as a last resort, as in former years. For these reasons methods of delivery can be used in cases where unusual difficulty is being experienced. In former years other methods would have been attempted; procedures used only as a last resort and which were attended with high mortality to the child in a desperate attempt to save the mother's life.

The low maternal mortality rate has been obtained with an operative rate for delivery which is extremely low, it is pointed out. Cesarean section is never resorted to unless it is clearly indicated by every known related factor.

The report shows but twenty-one deaths in the 10,708 deliveries, or an average of only two a year. In this regard it is stated that many of the most serious cases are sent to the teaching hospital.

Vital Elements Shown at Work in Human Body.—The manner in which the flow of the vital elements through the human body has been lighted up through the production of radioactive isotopes of those elements, to reveal or to check hidden disease, was detailed at the twenty-third annual meeting of the Pacific Division, American Association for the Advancement of Science by Dr. John H. Lawrence of the University of California Medical School, and the University's radiation laboratory.

Demonstrations of the manner in which the radioactive substances are deposited in both normal and diseased organs were made by Doctor Lawrence. Using actual samples of the phosphorous isotope, he showed how it could pass through human tissue and be checked for the whole term of its radioactivity by means of the Geiger counter, which is activated into granting or popping sounds by the emanations from the substance, and which can also count or measure these emanations.

Through the use of slides, Doctor Lawrence demonstrated the highly selective concentration of iodine in the thyroid gland, and how the total excretion of iodine in a five-day period is definitely increased in patients suffering with myxedema, a deficiency of the thyroid secretion. Another demonstration was made of the manner in which the radioactive iodine in the gland was traced for a number of days through the placing of the counter directly on the neck of the patient.

One demonstration of the manner in which radioactive substances are deposited in cancerous growths was made by Doctor Lawrence. Two mouse tumors, a lymphoma and a lymphosarcoma, which are practically indistinguishable,

both consisting of round cells and little stroma or framework, were treated. It was noted, however, that their phospho lipid turnover, after absorption of radioactive phosphorous, was quite different, the rate being much greater in the case of the lymphosarcoma.

Annual Conference of the National Society for the Prevention of Blindness, October 26-28, 1939.—With the hope that the headquarters of the National Society for the Prevention of Blindness will be the mecca for the prevention of blindness to workers in the United States during this time, the society is planning to hold its annual conference October 26, 27, and 28, so that those from distant points who may be planning to enjoy the World's Fair may perhaps make their plans so that they may at the same time participate in the program of the society.

Headquarters for the annual conference will be the Astor Hotel in New York City. The society will be glad to make reservations in advance at this or other adjacent hotels for anybody planning to participate.

It is hoped that the conference will bring together from many states physicians, teachers, nurses, social workers and those active in the various fields of sight conservation. Arrangements will be made for extending the facilities of the society's offices at Rockefeller Center, 50 West Fifth Street, to all visitors.

Press Clippings.—Some news items from the daily press on matters related to medical practice follow:

Doctors Win Anti-Trust Case

Sherman Act Doesn't Apply, Court Holds
Government's Suit Against American Medical Association Is Thrown Out in District of Columbia

Washington, July 26 (AP).—Justice James M. Proctor of the District of Columbia Federal Court today dismissed the Government anti-trust proceedings against the American Medical Association.

He held that the practice of medicine is a profession and that the Sherman Anti-Trust Act applies only to business and trades.

The Department of Justice had obtained indictments against the American Medical Association, three other medical organizations and twenty-one prominent physicians on the grounds that they had conspired to restrain trade by fighting a group system of medical care at flat monthly charges.

Today's action sustained the American Medical Association's demurrer to the indictment. Unless Justice Proctor's ruling is reversed by a higher court, it will have the effect of closing the case.

Discrimination Charged

The Government acted when the Group Health Association, Inc., protested that the District of Columbia Medical Society was discriminating against it. The group was formed here to provide low-cost medical care, especially for the lower income groups. It found that certain hospitals and doctors refused to accept patients referred to them by the group's own doctors.

The Government investigated circumstances of this alleged discrimination for eight weeks and then presented the case to the Grand Jury here. The indictments followed.

In arguing against the demurrer which the Medical Association promptly filed, the Government asserted that Anglo-American law reaching back to the fifteenth century had regulated medicine by the same laws as those applying to any trade. Trade, the Department of Justice attorneys declared, includes every occupation in which money is habitually received, under contract, in return for some value given.

The American Medical Association counsel contended that this definition of trade was too broad and if applied would encompass all business and professions to the point of "destroying all human activity." Such a broadening of power, the American Medical Association contended, was contrary to common law and the American Constitution.

The group argued that medicine was a profession, not a trade, and therefore does not come under the scope of the Sherman Trade Restraint Act. That was the contention that Justice Proctor upheld.

Department Will Appeal

The other organizations named in the indictment were the District of Columbia Medical Society, the Harris County (Houston, Tex.) Medical Society and the Washington Academy of Surgery.

Wendell Berge, first assistant to Anti-Trust Chief Thurman Arnold, said he assumed the decision would be appealed.

"An appeal seems to me to be a foregone conclusion," he said. "I can't imagine our resting on a lower court's decision in a case of this importance."—San Francisco News, July 26.

* * *

Medics Triumph in United States Battle on "Trust"

Washington, July 26 (AP).—The American Medical Association won a sweeping victory over the Government today when a federal district court held that the Sherman Anti-Trust Act could not apply to the practice of medicine.

Justice James M. Proctor, ruling out an indictment in which the Justice Department charged the American Medical Association and fellow defendants restrained the "trade" of Group Health Association, Inc., a cooperative health association in the District of Columbia, said:

"Is medical practice a trade within the meaning of section three of the Sherman Act? In my opinion, it is not."

Justice Department officials, while not commenting, indicated an appeal would be asked.

Justice Proctor remarked at one point that the indictment as drawn "smacks" of a "highly colored, argumentative discourse," and at another point he said it was "afflicted with vague and uncertain statements."

In some instances, he added, material facts were entirely lacking.

The indictment had declared that the defendants "combined and conspired" to restrain trade by seeking to prevent group health from arranging for medical care and hospitalization; by restraining the organization from "obtaining by cooperative efforts" adequate medical care for its members; by "restraining the doctors serving on the medical staff of Group Health Association, Inc., in the pursuit of their callings"; by restraining other doctors from serving it, and by "restraining the Washington hospitals in the business of operating such hospitals."

The grand jury had charged that the organizations and physicians agreed to forbid group health doctors to practice in Washington hospitals; had denied consultations to group health physicians.—San Francisco Call-Bulletin, July 26.

* * *

Doctors Win in Anti-Trust Suit Over Group Medicine Indictment Against Association Killed

U. S. to Appeal Decision of Washington, D. C., Court
By The Associated Press

Washington, July 26.—The Department of Justice suffered a major defeat today when a Federal district judge tossed out of court an indictment charging the American Medical Association, three other medical organizations and twenty-one prominent physicians with violating the anti-trust laws.

Justice James M. Proctor ruled that medicine is not a trade, but a learned profession, and therefore that the defendants could not be guilty of restraint of trade in their alleged activities against Group Health Association, Inc., a cooperative set-up to afford medical care on a prepaid basis to federal employees in the District of Columbia.

The judge also caustically criticized the indictment, using such words as "bad," "improper," "highly colored," "vague" and "uncertain."

Early Appeal

The Justice Department announced in a formal statement tonight that "every effort" would be made to get a Supreme Court decision on the district court's action "at the earliest possible moment."

In a formal statement, the Department said it was making its announcement "not for the purpose of criticizing the opinion, but for the reason that it is important to inform physicians generally that until the Supreme Court has acted the Government's prosecution policy toward boycotts in the medical profession is unchanged."

"None of the reasoning of the opinion persuades the Department that doctors are free to engage in practices which would be illegal if they belonged to some other calling," the statement said.

Prosecution Looms

"In addition, any further restraints of the character included in the indictment will also be subject to prosecution."

"It is important the physicians not be misled on this point for the reason that the district court opinion is not a binding authority on other judges."

The indictment, returned by a Federal Grand Jury last December, charged that the American Medical Association, the Medical Society of the District of Columbia, the Washington Academy of Surgery, the Harris County (Texas) Medical Society and the twenty-one physicians had "combined and conspired together for the purpose of restraining trade."

The specific charges were that they had interfered with the plans of Group Health Association by refusing consultation service to the group's physicians, by refusing them permission to practice in Washington hospitals, and by threatening to expel them from membership in the medical societies.

Leading Defendants

Among the defendants named in the indictment were Dr. Olin West, secretary and general manager of the American Medical Association; Dr. Morris Fishbein, its editor; Dr. William C. Woodward, Dr. William D. Cutter and Dr. Roscoe G. Leland, heads of three of its bureaus. The other doctors all were members of the District of Columbia Medical Society.

In rejecting the Government's argument that medical practice is trade within the meaning of the statute, Justice Proctor said:

"The thesis of Government counsel that 'trade' embraces all who habitually supply money's worth for money payment and their contention that the statute should be so broadly construed represents an extreme position which does violence to the common understanding of 'trade,' rejects authoritative decisions of our courts and ignores cardinal rules of statutory construction."

A recent decision of the Supreme Court redefined the word "trade" as used in the Sherman Act and exempted the learned professions, Justice Proctor said, "and admittedly the practice of medicine is one."

At Chicago today officials of the American Medical Association declared the organization had never opposed any well considered, expanded program of medical service "when the need can be established."

Nation-wide Topic

The local legal struggle has been the focal point of a nation-wide discussion over medical aid plans. These have been set up in every state and in about one-third of the counties, and in every instance the American Medical Association has insisted, through its member societies, that any organization attempting to provide medical care be under the direct control of medical men. Objections to Group Health were raised on the ground that it was a co-operative group of laymen which hired its own physicians and dominated them.

The association also argued that the same safeguard be provided in such a national health program as that proposed in the Wagner Health Bill now before Congress.

"The physician must be master in the house of medicine," has been the slogan of the association.—San Francisco Examiner, July 27.

Washington Merry-Go-Round*

Social Medicine to Be McNutt's Main Job

Washington, July 19.—There was a reason why Paul McNutt took his oath in the office of Dr. Thomas Parran, head of the Public Health Service, and also will have his headquarters there.

That is the tip-off to his real job as chief of the new Federal Security Agency.

The platinum blonde Indianan will give little time to the Social Security Board, CCC, National Youth Administration, Public Health Service or the Office of Education. Each is well manned and operates under specific statutory powers. There is room for a certain amount of correlation of their activities, but that will be a secondary concern of McNutt.

His interest will be centered on the New Deal's social medicine program.

Senator Bob Wagner, father of the Social Security Act, introduced a bill at the opening of this session for an \$800,000,000 public health plan, ranging from free medical service for the needy to the construction of hospitals and establishment of government disability insurance. The Senate Labor Committee has held a number of hearings on the measure and plans to make a report before adjournment. But beyond that there is no chance of any action this year.

That is exactly where McNutt enters the picture.

He will drive to prepare the ground for the enactment of legislation next year.

What form this legislation will take is something McNutt will work out with medical leaders and experts. The Wagner bill will be the starting point. It is the result of a year's study by a special committee appointed by the President and

* By Drew Pearson and Robert S. Allen.

headed by Miss Josephine Roche, former Assistant Secretary of the Treasury.

Two Reasons

There are two reasons behind this undercover strategy:

First is the 1940 presidential campaign. The Administration wants a broad-gauged public health program to its credit on the law books as 1940 approaches. In the spring of 1936, it enacted the Social Security Act and made big capital of it among voters.

Second reason is that the New Dealers have learned that Dr. Glenn Frank, chairman of the Republican Program Committee, is secretly formulating a public health plan for use as a G. O. P. ballot lure.

Exact nature and extent of Frank's Republican program is not known, but inside information in the hands of the White House group indicates that he aims to have the G. O. P. offer the plan as a concrete illustration of the constructive things it will accomplish if elected, as compared with Democratic lack of accomplishment.

Administration master minds are out to beat the Republicans to the punch and it will be McNutt's goal to steal their thunder by putting over a Democratic health program.

Note—Among the telegrams received by McNutt congratulating him on his FSA appointment was one from Dr. Morris Fishbein, editor of the official magazine of the American Medical Association and a violent foe of social medicine. . . .—San Francisco Chronicle, July 20.

* * *

Dentists Told Liberty Periled*

Free Initiative Menaced by Government, Says Publisher Gannett

Milwaukee, July 18 (AP).—Frank E. Gannett, Rochester, N. Y., publisher, called upon the American Dental Association today to "repeal assault upon liberty of enterprise, individual initiative and personal dignity—upon qualities which are the foundation of all that we call the American way."

Asserting that "progress comes not from centralization and political control but from opportunity for free initiative," Gannett told the Association's eighty-first annual convention:

"Today freedom of the professions is under jeopardy in America. The medical profession was the first to be placed under check. American medicine has been fighting for its life."

Sees Threat to Bar

Gannett declared the assault upon the professions had been extended to law, since "last week Solicitor-General Jackson announced to the lawyers that if they did not organize the Government would step in and take care of the constantly increasing proportion unable to secure legal services."

Suggests Program

Gannett advocated a return to "sound economic principles" and a recovery program including: a national policy "worthy of confidence," restoration of farm income, a "sound" monetary system, restoration of "incentive," friendly capital-labor relations, lower governmental expenses, useful public works "free of politics," and a long-term neutrality policy.—Los Angeles Times, July 19.

* * *

Medical Care Need Shown in Report

A survey of medical needs, requested by members of the State Legislature, has revealed that 41.68 per cent of American families are too poor to meet the full cost of medical care, it was stated today by the "Bureau of Public Administration of the University of California." †

A total of 40,000,000 persons in the United States were subsisting on an emergency standard of living in 1938.—San Francisco Examiner, July 24.

* * *

Los Angeles Healthiest City

Doctor Parrish's Annual Report Reveals New Decline in Death Rate

El Pueblo de Nuestra Señora la Reina de Los Angeles de Porciuncula (Los Angeles to you) is the most healthful large city in America.

That was the enthusiastic statement, backed by facts and figures, of Dr. George Parrish, city health officer, yesterday as he completed compilation of his departmental report for the fiscal year ending June 30.

During the last year this city's death rate—already the best among large American cities—dropped from 10.65 per

* In this issue, see also on page 74, editorial comment, "The Professions: Are All to Bow to Governmental Paternalism?"

† NOTE.—It is unfortunate that such erroneous figures should go out for publication, over the name of a department of the State University of California.

1,000 persons to a new low of 9.16 per 1,000, Doctor Parrish's records showed.

The infant death rate (children under 1 year) dropped from 48 per 1,000 to a new low of 37.42.

Moving from the human to the economic side of the ledger, the health officer reported that Los Angeles had no epidemics last year, that its dairies under supervision of the health agency have received commendation from the highest health authorities in the nation.—*Los Angeles Times*, July 20.

* * *

The Doctors' Problem

The plan to set up a State-supervised medical service at a cost of \$60,000,000 per year, to be supported by taxes on employers and employees, has been beaten. The Assembly rejected the measure, 48-20.

The bill, which was endorsed by the administration, would have provided medical and hospital service on a basis similar to the unemployment reserves plan. In favor of the proposal was the fact that it would have provided this service on a systematic basis for low-income groups. Against it was the fact that still another tax would have been laid upon business and the people and that almost inevitably the control of the service would have been shifted to a bureaucratic political machine, with consequent sure deterioration in the quality of the service rendered.

The history of this type of public medical service, in countries where it has been tried, is that the care received by the people is inferior to that received in this country, and the strides toward the control of disease are slower than here.

However, the fact that this far-reaching proposal received even twenty votes in the California Assembly, together with the Wagner bill in Congress which would subsidize a huge expansion of government medicine throughout the country, should serve as handwriting on the wall for the physicians of the State and Nation.

The medical men of the United States can hold up their heads with any in the world for the gains they have made in the unending conflict with disease. Smallpox, diphtheria, tuberculosis, scarlet fever, pneumonia—none of these is the scourge it was ten years ago and even the dread cancer is certain ultimately to be conquered.

However, the physicians themselves have long admitted that there is a genuine need for better medical service for the great middle class group. The poor are taken care of in county hospitals. The rich can pay for service. But the middle class often finds sickness a financial burden that is very heavy to bear.

Part of the fault lies with the people themselves. They budget for their autos, refrigerators and amusements but do not set aside any amount for medical and hospital care. It should be made simple and easy for the ordinary family to budget a moderate amount each month to take care of illness when it comes.

Perhaps the California Physicians' Service, which will soon go into operation, will provide the systematic, low-cost service needed. At any rate, the doctors, seeing the public demand for such service, should take the lead in providing it, as they seem to be prepared to do, rather than allow legislators to put over a politics-controlled system.—*Los Angeles Times*, June 23.

* * *

State Health Insurance Losses; Doctors to Offer Their Plan

Defeat of the bill to establish compulsory health insurance in California by a two-to-one vote in the Assembly was not altogether unexpected. There were two main reasons why the bill should have been defeated—one, that the State Medical Association is working on a plan which promises to be far superior to a State controlled and operated plan, and, two, the inequitable financial provisions of the State plan.

The doctors of the State asked that the bill be defeated, and that they be allowed to work out their own solution to the problem of proper medical care for the lower income groups. It now remains for the doctors to put their plan in operation and have it working by the time the next Legislature meets. If it is operating successfully by then there will be no need of State action.

The danger the doctors themselves face is that some members of the medical profession will take the defeat of the State proposal as an indication there is no special hurry to get their plan in operation, or that the trend to socialized medicine has ended. In either event, the next Legislature will not listen to the doctors but pass legislation which might not be popular with either the doctors or the income group which needs but cannot afford medical aid.

The plan advanced by the Medical Association is a volunteer proposal, which is always better than a compulsory service. To make it work cooperation from both doctors and patients is needed. This guarantees better service from the doctor and greater trust on the part of those needing attention.—*Santa Barbara News-Press*, June 17.

Newspapers Praised for Fight on Disease

Social Hygiene Director Tells of Cooperation

American newspapers, through frank treatment of the problem of social diseases, have taken front rank in the battle against one of the Nation's greatest menaces to health.

Such was the statement yesterday of Dr. Walter Clarke, executive director of the American Social Hygiene Association of New York, as he spoke before members of the Western Branch, American Public Health Association, at the opening session of their six-day conference in Oakland.

Truth Disclosed

"Newspapers have cooperated with the American Social Hygiene Association in telling the public the simple, hopeful truth about venereal diseases," Doctor Clarke said.

"Yet some states and many cities, towns and rural areas do not even have a program for combating these diseases nor do they have facilities for diagnosis, treatment or control," he said.

"Our most immediate task is to aid in setting up such programs and adequate facilities. It is true that public opinion has been awakened, yet millions of people do not know how to avoid or prevent infection, do not know what to do if infected, or how to protect their families from danger.

"We must continue and enlarge our program of public information until it reaches all strata of society in every community, large or small," Doctor Clarke declared.

Two Hundred Registered

Over two hundred delegates had registered for the convention yesterday, and several hundred more are expected today. A joint meeting with the health education group of the Sixth Pacific Science Congress is planned for 3 p. m. today in the Hotel Oakland. Dr. Ira V. Hisecock of the Yale University School of Medicine will preside.—*San Francisco Examiner*, July 24.

* * *

Scientists' Congress

Dozen Nations Scheduled for Representation

A "peace conference," organized in the name of science but of far more importance to the welfare of man than any meeting of world diplomats, will open in Berkeley today.

It is the Sixth Pacific Science Congress, bringing together the great scientific minds of a dozen nations bordering on the Pacific Ocean or with interests in the Pacific basin.

Around the conference tables they will meet in harmony to discuss problems of the world of science, and from the friendly exchange of ideas may well develop trends of scientific thought of incalculable value to the comfort and well-being of future generations. . . .

Group Meetings

At group meetings today, the scientists will get down to business after a morning devoted to registration. The problems of epidemics, with special emphasis on enteric infections, dysenteries, cholera and typhoid fever, will be discussed at a meeting of the epidemiology subsection of the health and public nutrition group at a meeting in the Life Sciences Building on the Berkeley campus at 1:30 o'clock.

Dr. John F. Kessel of the University of Southern California, Los Angeles, will preside, and among the speakers will be James J. Saperio of the United States Navy Medical Corps, Panama; Charles A. Kofoid of the University of California and the State Board of Health; John F. Kessel of the University of Southern California School of Medicine, Los Angeles; Amador Neghme, Director of the Department of Parasitology, Chile; H. J. Sears of the University of Oregon; Albert V. Hardy of Columbia University; E. Hormaeche, N. Surrao, and P. L. Aleppo of Uruguay; C. L. Pasricha of Calcutta, India, and H. Yu of Shanghai, China.

Health Discussion

At a joint meeting with the Western Branch of the American Public Health Association, to begin at 3 p. m. in the Oakland Hotel, delegates will discuss the problems of health education and health in public schools and institutions. . . . *San Francisco Examiner*, July 24.

* * *

Health Insurance

The State Assembly, by a decisive two-to-one vote, defeated the bill to establish compulsory health insurance in California. The opposition to the measure was largely due to the inequitable financial provisions of the proposal and not against health insurance itself, whether voluntary or compulsory. It is generally recognized that there is a problem of proper medical care for lower income groups which must be faced, but the existing voluntary plans and those proposed and being worked out should be given opportunity for trial to the end that more practical information be made

available to all interested groups. This may finally result in an equitable solution.

The measure which was defeated proposed an additional tax upon employees, but two-thirds of the amount would be provided by the general public. The bill was in effect socialized medicine for the State of California. It was feared by the medical profession that the whole plan would bring about regimentation of doctors and patients and political interference in their relationship.

In the meantime the State Medical Association has adopted a plan of health insurance to meet the present situation. Alameda County, for instance, is successfully operating under such a plan. Out of all the agitation and discussion it is the general belief that the existing voluntary plans will be satisfactorily worked out.—*Long Beach Press-Telegram*, June 18.

* * *

State Medical Men to Fight On for Health Insurance

Defeat of the State health insurance bill of the California medical men will not stop organization of the California Physicians' Service, according to Dr. Ray Lyman Wilbur, president of Stanford University and head of the service. This means, perhaps, that the set-up may be changed in some particulars to meet the legislative objections responsible for the loss of the measure and to make the proposal effective.

It is interesting to know that more than 400,000 applications for information on the service have been received at headquarters and that 4,962 of the State's 6,300 licensed physicians have been enrolled in the service, according to Doctor Wilbur. This indicates that the profession strongly fortifies a general health insurance plan and furnishes a substantial basis on which to erect a system that will meet public conditions.—*Hanford Journal*, June 16.

* * *

But—Says Boake Carter

New Dealers Now Seek to Socialize Law

Are the lawyers to be next on the list to feel the heavy hand of government competition?

Solicitor-General Bob Jackson claims that lawyers in general are charging too high fees for their services and that the Government may therefore be compelled to provide free legal service for people who cannot pay the fees of the private law firms.

"Low cost, high volume" legal service was his solution.

This piece of advice, coming from a lawyer representing a political organization whose high jinks have been so confusing as to provide more work for the legal fraternity than at any other time in the history of the American bar, borders on the comic.

A lawyer is justified in charging a fee which he believes commensurate with the worth of the services he renders, as is any artist, radio singer, movie actor, engineer, doctor, dentist or other professional man.

We have not yet reached the stage where we must submit to a system of socialized legal advice, as Mr. Jackson seems to envision as America's crying need, any more than we are prepared to accept socialized medicine. The relationship between client and lawyer is as intimate as the relationship between doctor and patient. And the very first person to turn thumbs down on the idea of government competition with the lawyers would be the average American citizen himself.

* * *

To be sure, some of the lawyers charge fees which seem outlandish. But their "outlandishness" can be measured only by the worth of the service rendered by the lawyer in the estimation of the client. A man accused of murder may feel he paid a cheap price in \$25,000 if the lawyer to whom he paid it convinced the jury his client was innocent. There are lawyers who specialize in certain departments of law. Many of these establish a high standard of success before the bar. They are successful primarily because they are diligent and careful of detail. These characteristics are attainable only through long hours of hard work. For such "crimes" are they to be penalized?

Mr. Jackson was not known as anything extraspecial in the legal profession before he managed to climb aboard the New Deal bandwagon. By his avidity for politics and knowing whose political mug to kiss, rather than by his technological cunning as a lawyer, did Mr. Jackson rise to the position of Solicitor-General. Not in the widest stretch of imagination could Mr. Jackson hold a professional candle to the standards of sheer legal brilliance of the late Solicitor-General James M. Beck.

Where, then, does Mr. Jackson obtain the presumption blandly to inform some of the ablest legal brains of the Nation that they had better socialize their talents or else risk government competition in free advice? Simply that he is a politically appointed Solicitor-General gives him no excuse.

Furthermore, the boom in the law business during the last seven years is traceable to one source and one source alone—the New Deal, which Mr. Jackson represents. Most lawyers nowadays have to be mental trapeze artists to keep abreast of the twisted concoctions that have poured forth in a steady stream from the legal brains employed by the New Deal.

"The Government," says Mr. Jackson, "sees a large number of citizens who help pay taxes, deprived of legal service because they cannot pay the provisional scale of prices."

To begin with, a citizen cannot turn around nowadays, figuratively speaking, without being forced to go to a lawyer to find out whether he is or isn't unwittingly breaking some fool law, government ruling or regulation. In the second place, the lawyer whom he consults has a perpetual nightmare himself trying to keep up with the parade. The average citizen would not always be forced to run for legal advice these days, as indeed he must to keep out of a government jail, if the master minds in Washington quit thinking up new methods of regulating American economy from soup to nuts.

* * *

"It has been for centuries thought the duty of government to take affirmative steps to see that its citizens received justice," Jackson observed.

The first step to carry out that thought in a "representative" form of government (Jackson forgot to include that word "representative") is for the Government to abstain from competing with the endeavors of its citizens!

Mr. Jackson had better go back to Jamestown, N. Y., and private law. He might get back to earth again—on the other side of the fence!—*San Francisco Examiner*, July 17.

* * *

Nurses Cheered by New State Law

Leaders Believe Licensing Act Will Raise Standards in Nursing Profession

If nurse hums a tune when she brings in your tray, or cuts a buck and wing in the hospital corridor, don't fret. This is her day to cheer. Her professional manner isn't suffering—her professional standing has been raised.

There's rejoicing today among registered nurses in the State of California, and particularly among the 10,494 members of the California Nurses Association. Assembly Bill 620, licensing all nurses practicing as professional graduate nurses in California, has been signed by Governor Olson.

The very pen with which the Governor affixed his signature yesterday to the measure for which the Association has worked long and hard was triumphantly brought to San Francisco today by Mrs. Gertrude R. Folendorf, State president. Miss Harriott L. P. Friend, director at headquarters; Mrs. Jessie Gardner, legislative chairman, and a delegation of all nurses who could get off duty, met Mrs. Folendorf at the Third and Townsend station at 9 a. m. today to escort her and the pen to headquarters. Governor Olson signed the bill after a public hearing during which representatives of the American Practical Trained Nurses Association protested that the measure would discriminate against the practical nurse.

"I do not believe this bill will affect practical nurses by eliminating them from employment," said the Governor. "If it develops that it does so affect them, I shall have it amended."

The California State Nurses Association itself had introduced an amendment, passed with the bill, stating that it was not the intent of the act to limit others from caring for the sick as long as they do not misrepresent their status or assume the duties which can safely be performed only by a trained and skilled graduate nurse.

The bill also sets up a board of nurse examiners, appointed by the Governor, controlling nursing schools of the State. The California State Nurses Association has long advocated the setting up of such a board, holding that applicants for nursing licenses should be examined by their own profession, as is the practice among members of other professions.

"We feel that this bill raises the standards of the nursing profession," said Mrs. Folendorf.

"It also protects the public. When anyone calls for a graduate nurse he knows he is getting one fully qualified in the care of the sick."

High praise was extended by Mrs. Folendorf and Miss Friend to the forty-five district divisions of the Association, which worked together for passage of the bill.

The bill was introduced into the Assembly by Melvin I. Cronin of San Francisco, passed the Assembly May 5, and the Senate June 6.

The Association has already set up a committee to study nursing conditions and set up a nursing service designed to meet the needs of the community. This committee work will be furthered at the 1939 convention of California profes-

sional nursing organizations, set for August 14 to 17 in San Francisco.—*San Francisco News*, July 18.

"Doctors Should Report Drivers"

A change in State laws which would make it mandatory for physicians to report drivers whom they consider unsafe was urged by Dr. Walter Scott Franklin, vice-president of the California Safety Council, at a meeting of the group yesterday.

"As the law stands," he said, "a physician is not permitted to report such cases. We could achieve a great accident reduction if physicians were compelled to report flagrant cases."

The dangerously slow as well as the physically incompetent driver was also scored by Doctor Franklin, who pointed out that it is not necessarily the fast motorist who causes accidents. The latter, provided his speed is not caused by recklessness, alcoholism nor competitiveness, is usually a good driver, he said, whereas the slow driver often causes an accumulation of fifteen to twenty cars behind him, inducing recklessness in those who want to get ahead.

Within the near future, according to Doctor Franklin, autos will be equipped with special headlight glass to eliminate glare for about \$22 per automobile and drivers will be urged to wear glareless glasses. Night blindness, a contributing cause to many accidents, is caused by deficiency in vitamin "A" and may be rectified by a diet heavy in spinach, cheese, dried apricots and calves' liver, he said.—*San Francisco News*, June 30.

Poliomyelitis Fund Sought

General Hospital Reports Increase in Number of Cases

Officials of General Hospital yesterday appealed to the Board of Supervisors for funds to combat poliomyelitis, which has been increasing in number of cases during the last few days.

Thirty Being Treated

Everett J. Gray, executive superintendent of the hospital, reported thirty cases are now under treatment. The victims are coming from all parts of the county. There does not seem to be any section where the disease is more prevalent.

Colonel Wayne R. Allen, County Manager, in forwarding Superintendent Gray's report to the supervisors, said:

"The hospital authorities have been informed that the present situation is to be considered as an emergency and that ample personnel and medical attention must be given regardless of budget limitations. Any additional expenses will be appropriated from the unappropriated reserve, which is the purpose of providing reserves in the county budget."

Ward Segregated

The hospital has set up a special segregated ward for treatment in preparation for any further outbreaks of the disease. This ward now has been opened and organized for the present emergency.

Ordinarily there are only two or three cases of the disease under treatment at General Hospital, sometimes none.—*Los Angeles Times*, July 13.

Holiday Deaths Pass 300; None Due to Fireworks

(By the Associated Press)

Building to the climax of Independence Day, violent deaths for the first three days of the four-day "week-end" passed three hundred last night.

As in recent years, automobile fatalities accounted for more than half the total, with 165. Drownings ran a poor second with 84.

Fireworks, once notorious as dealers of sudden destruction, caused not a single reported fatality. The only fireworks accident of any proportions was recorded in Brooklyn, where five boys were injured by setting off a handful of giant cannon crackers inside a tin container. Two of them may die, doctors said.

Railroad accidents killed 16, shootings a dozen, airplane crashes 3, while miscellaneous forms of violence totaled 27.

The list by states, including all causes, was:

Alabama, 9; Arizona, 2; Arkansas, 3; California, 26; Colorado, 4; Connecticut, none; Florida, 7; Georgia, 10; Idaho, 1; Illinois, 11; Indiana, 13; Iowa, 5; Kansas, 5; Kentucky, 8; Louisiana, 5; Maine, 5; Missouri, 11; Massachusetts, 10; Michigan, 9; Minnesota, 8; Mississippi, 9; Montana, 4; Nebraska, 4; New Hampshire, 2; New Jersey, 10; New Mexico, 1; New York, 22; North Dakota, 3; Ohio, 22; Oklahoma, 5; Oregon, 3; Pennsylvania, 14; South Carolina, 5; South Dakota, 3; Tennessee, 4; Texas, 18; Utah, 1; Virginia, 9; West Virginia, 4; Washington, 6; Wisconsin, 2; and District of Columbia, 1.—*Los Angeles Examiner*, July 4.

LETTERS

Subject: Clinical Congress of the American College of Surgeons.

To the Editor:—The twenty-ninth annual Clinical Congress will be held in Philadelphia, October 16 to 20. The surgeons of that great medical center will present a five-day clinical program that will provide a complete showing of their clinical activities in all departments of surgery.

At the presidential meeting and convocation Monday evening, Dr. Howard C. Naffziger of San Francisco will deliver the presidential address and the new officers will be inaugurated: Dr. George P. Muller, Philadelphia, president; Dr. Henry W. Cave, New York, and Dr. David E. Robertson, Toronto, vice-presidents. On this occasion fellowship will be conferred upon the 1939 class of initiates.

The preliminary clinical program appears in the June Bulletin of the College and the June issue of "Surgery, Gynecology and Obstetrics." It will be noted that the schedules are arranged by specialties, and so correlated that the visiting surgeon may devote his time continuously to those subjects in which he is most interested. . . .

Sincerely yours,

GEORGE CRILL,
Chairman, Board of Regents.

Subject: Ambulatory Tipster.

A Santa Barbara colleague sends the following information:

"An Irishman, aged about 35, claiming to be a jockey and horse trainer, with wide knowledge of tracks and races as well as the names of doctors in many cities, is visiting doctors and stating he is contemplating a septum operation.

"Just as he leaves, he offers a hot tip on the day's races at Hollywood, with promise of big winnings. Oddly, his horses do win, but he never returns. Names—Hannigan, Hunt, and Hickgerald.

"I refused his offer, but two of my friends lost small sums, and also a tenfold winning on one of the tips."

Subject: San Francisco Surgical Society.

San Francisco, California,
July 1, 1939.

To the Editor:—I have been instructed to advise you of the formation of the San Francisco Surgical Society during the spring of this year.

The Society consists of twenty-four founder members. The officers are Thomas F. Mullen, president; George K. Rhodes, vice-president; John W. Cline, secretary-treasurer.

Regular scientific and clinical meetings will be held throughout the year.

Very truly yours,

JOHN W. CLINE, M. D.,
Secretary-Treasurer.

Subject: Clinics for Venereal Diseases.

San Francisco, California,
July 1, 1939.

To the Editor:—The Health Department clinic at 680 Howard Street, San Francisco, operated by the Department of Public Health, San Francisco City and County, cooperating with the State Health Department and the United States Public Health Service, for the prevention, diagnosis and treatment of venereal diseases, is now engaged in its fourth month of service.

An effort is being made to direct patients found able to pay for care to private physicians. Plans are under way to establish a list of physicians willing to treat venereal disease

patients referred from the clinic. For this purpose a questionnaire has been prepared which will serve as a basis for establishing a list of physicians to whom patients will be referred. Patients who do not signify choice of physician known to them will be referred to physicians on the list in the order in which their names appear.

The Health Department clinic is maintaining a central register of patients who apply there for advice or care in venereal diseases and it would be desirable to continue the record of progress and treatment on these patients. For this reason reports from physicians on progress and treatment given patients referred from the clinic would be appreciated.

101 Grove Street.

Sincerely yours,

J. C. GEIGER, M. D.,
Director, City and County of San Francisco
Department of Public Health.

TO:

PURPOSE: To establish list of physicians in San Francisco who desire to accept patients with venereal diseases referred from Health Department Clinic located at 680 Howard Street.

INSTRUCTIONS: Please check in space provided all the statements which apply to you, thus signifying your wishes. Enclose this completed questionnaire in stamped addressed envelope provided.

1. I do not treat venereal disease patients in my practice. _____
2. I do not wish to treat venereal disease patients referred to me by the Health Department Clinic. _____
3. I am willing to treat only full-pay venereal disease patients. _____
4. I am willing to treat part-pay venereal disease patients. _____
5. I am willing to treat male gonorrhea. _____
6. I am willing to treat female gonorrhea. _____
7. I am willing to treat syphilis. _____
8. If there are special types of syphilis only which you wish to treat, as neurosyphilis, ocular syphilis, or restriction as to sex or age, please specify. _____

9. If you desire referred patients, indicate time during your office hours when patients should report to you. _____

10. Remarks _____

July 1, 1939.

Subject: California Medical Association Resolutions Concerning "Wagner Health Bill."

(COPY)

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
WASHINGTON, D. C.

LELAND M. FORD
SIXTEENTH DISTRICT
CALIFORNIA

Washington, D. C., July 8, 1939.

Dr. George H. Kress,
Secretary, California Medical Association Council,
San Francisco, California.

Dear George:

I received your letter of July 6, subject, "Resolution of California Medical Association concerning Wagner Health Bill, S. 1620," together with proposed amendments under H. R. 6635.

You may be sure that I will do everything possible to oppose this socialized idea of medicine. Not only am I going to oppose socialized medicine, but I am going to oppose every other socialized and communistic idea that they bring forth. I do not believe the Federal Government has any business in many of the things that they are now in unless you are going to have a socialistic or communistic republic. I am against these things.

We now have a half-socialized government and I am going to do everything I can to get it out and get back to an American form.

With best personal regards, I am

Sincerely yours,

(Signed) LELAND M. FORD.

P.S.: I am going to put your resolution in the Congressional Record.

Subject: Medical Libraries of State of California.

UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL

San Francisco, July 13, 1939.

To the Editor:—This is in response to your letter of July 10 regarding the State Medical Library situation.

1. The State Medical Library was discontinued on June 30, 1939. Both branches were closed as branches of the State Medical Library. However, all the work of the State Medical Library is being carried forward under the direction of the Regents and President Sproul by the University of California Medical Center Library, at San Francisco.

The subscription lists from the Los Angeles Branch are being transferred to the Medical Center Library, and the periodicals are being circulated from San Francisco to the State Medical Library subscribers all over the State. So far as I know there has been a minimum interruption in the service. There has been a slight delay in connection with some periodicals, but the service is being continued as efficiently as possible. . . .

The University of California Medical Center Library has had an additional appropriation from the Regents to take care of the subscription lists formerly carried by the State Medical Library. We cannot, however, make requisitions, since the University budget will not be signed until July 19.

2. The publications purchased under State Medical Library funds will remain on deposit in the University of California. At Los Angeles they will remain at the Medical Department in the custody of Dr. Bennett Allen. I think they will stay right in the place where they now are. We intend to maintain the files of these periodicals at Los Angeles from duplicates acquired in the Medical Center Library. This is readily possible and will require only binding at some future time. We will also be happy to supplement the Los Angeles collection with duplicate monographic material purchased for use under the circulating library system. The State Medical Library material purchased for the San Francisco Branch has always been on deposit in the Medical Center Library and will continue to remain there.

3. There is no provision, except through specific request, for the loan of periodical files to county medical society libraries. We do this continuously, but always have the material returned here. We have furnished duplicate files to San Jose, Los Angeles, and Alameda county medical societies. We shall continue to do this in the future if duplicate material becomes available and if requests are made for it. . . .

Best wishes as always, and many thanks.

Faithfully yours,

(Signed) CHAUNCEY D. LEAKE.

MEDICAL SCHOOL
UNIVERSITY OF CALIFORNIA

San Francisco, July 19, 1939.

Dear Doctor Kress:

Thanks for your letter of July 17. As I told you before, we have already sent duplicate material from the Medical Center Library to various county societies. In addition to the ones you list, the Santa Clara County Medical Society at San Jose is attempting to build up a library. I don't think that we have ever sent material to Riverside as yet, but we will if we have any on hand that they desire.

Our prime obligation at present is to maintain the files at Los Angeles which were established by the Los Angeles Branch of the State Medical Library. We have already made arrangements to do this with Dean Allen. They will see to it that duplicate material from here is bound to keep the files intact.

I see no objection to printing my letter in CALIFORNIA AND WESTERN MEDICINE, if you think it covers the situation. I have prepared reports on several occasions for President Sproul, but nothing has been included which is not covered in my letter to you. I have also prepared a short statement for the Clip-Sheet, which will be released if it is satisfactory to the President's Office. It contains substantially the same information as given in my letter to you.

With cordial best wishes, as always,

Sincerely yours,

(Signed) CHAUNCEY D. LEAKE.

Subject: A request for information.

BOARD OF MEDICAL EXAMINERS
STATE OF CALIFORNIA

San Francisco, July 21, 1939.

To the Editor:—Enclosed is a copy of a rather mysterious communication which we would appreciate your printing in CALIFORNIA AND WESTERN MEDICINE, omitting names and exact addresses.

Attention is called to the fourth and fifth paragraphs, also to the typewritten signature, "Pacific States Investigators," of which no record can be found by our Investigation Department.

The individual referred to in this letter was diagnosed as being two months pregnant, after which she assertedly solicited an abortion, which was refused. A few days later this letter was received.

We will appreciate hearing from any other doctors who have received similar letters, together with the circumstances in connection therewith.

Very truly yours,

(Signed) C. B. PINKHAM, M.D.,

Secretary-Treasurer.

(The following letter was received in a plain envelope, postmarked San Francisco, June 5, 4:30 p. m., 1939.)

(COPY)

San Francisco, California,
June 5, 1939.

Dr. _____
____ Building
(City), California

In re (Name)

Dear Doctor _____:

A few weeks ago your assistant had the following patient in your office. The nature of the case was maternity.

The call made was absolutely fictitious, and we are herewith explaining why the fee was not paid as Miss _____ promised.

Miss _____ is one of the operators of our organization, which we will not name, but which is one which investigates doctors and dentists in Oakland, Berkeley, and San Francisco. We work in close cooperation with the largest hospitals, and must work as we do to uncover disreputable doctors and dentists.

No certain doctor is set aside for investigation, but is given our so-called "test" as fast as we can do so. Our list is

then compiled and given to a hospitalization firm which is setting up a perfected system of group medicine, and which wishes to approach only the most reliable physicians and medical men.

We are very happy to inform you that you and Doctor _____ have been adjudged as worthy of consideration and you will hear further from the society shortly.

Thanking you for your cooperation, we remain,

Yours truly,

PACIFIC STATES INVESTIGATORS.

(Signed) (Name of Person).

Subject: American Board of Obstetrics and Gynecology.

Pittsburgh, Pa., July 7, 1939.

The next written examination and review of case histories (Part I) for Group B candidates will be held in various cities of the United States and Canada on Saturday, January 6, 1940, at 2 p. m. The Board announces that it will hold only one Group B, Part I examination this year prior to the final general examination instead of two as in former years. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held in June, 1940.

Applications for admission to Group B, Part I examinations must be on file in the Secretary's office not later than October 4, 1939.

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted by the entire Board, meeting in Atlantic City, N. J., on June 8, 9, 10 and 11, 1940, immediately prior to the annual meeting of the American Medical Association in New York City.

Applications for admission to Group A, Part II examinations must be on file in the Secretary's office not later than March 15, 1940.

After January 1, 1942, there will be only one classification of candidates, and all will be required to take the Part I examinations (written paper and case records) and the Part II examinations (pathological and oral).

At the annual meeting of the Board, held in St. Louis on May 12, 1939, it was found necessary, on account of increased administrative expenses, to increase the application and examination fees. Effective May 12, 1939, these are as follows: Application fee \$15, payable upon submission of application for review by Board; examination fee \$85, payable upon notification to candidate of acceptance of the application and assignment to examination. Neither fee is returnable. This increase does not apply to candidates whose applications were filed prior to May 12, 1939.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

MEDICAL JURISPRUDENCE†

QUALIFICATIONS TO BE AN EXPERT WITNESS

By HARTLEY F. PEART, ESQ.

San Francisco

About nine out of every ten suits against physicians or surgeons are concerned with either of the following issues:

1. Was a proper and approved practice followed?
2. If not, did the failure to follow it cause the injury complained of?

The law is well settled that either of these two issues is a question of scientific knowledge and fact, and, therefore, with few exceptions can be testified to only by expert wit-

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

nesses. Such experts are persons who, through extended study or practice, have acquired extraordinary knowledge upon the particular subject of inquiry. As to whether or not the witness has that extraordinary knowledge which qualifies him to state whether or not an approved practice was followed, and if not, whether the failure to follow it caused the injury, is a matter left solely to the best judgment of the trial judge. In view of the fact that the witness may be a person unknown to the judge, possessed of an appearance more professional than his ability, and often the only person present to establish his experience or other qualifications, instances may arise in which a witness who is lacking in the true qualifications of an expert is allowed to testify as such.

So far as present rules of law are concerned, it is conceivable that a professor in an unimportant medical school might by his mere insignia of office be permitted to testify in a case involving insanity even though he may actually have had little medical knowledge of insanity. The same would be true in reference to consulting physicians to asylums who, as a matter of fact, may have never visited the asylum, and assistant coroners who receive their appointment through political influence, both of whom may have no real attainment as pathologists. Actual instances of such testimony are not hard to find. In Alabama a physician who had received his doctor's license, had practiced one year and had then been a lawyer for sixteen years without continuing the practice of medicine, but continued to keep up his medical reading, was allowed to testify as an expert. In Illinois a graduate of a chiropractic school was permitted to testify as an expert in a case involving an injury to spinal vertebrae. In New York, the plaintiff in an action alleged that during the performance of an ethmoidectomy the doctor had permitted one of his instruments to penetrate from the nasal to the orbital cavity and had thus severed the optic nerve, thereby causing blindness. Plaintiff's expert testimony consisted of that given by a 26-year-old physician who had been admitted to practice only three years before, was not a member of any hospital staff, who was in no way an eye specialist, and who never in his life had performed an ethmoidal operation. The Court admitted his testimony as that of an expert. In a New Jersey case a physician who was not shown to have been a surgeon or oculist was allowed to testify as to how a defendant surgeon could have avoided doing any injury to the patient.

The courts of California have apparently been able to avoid making such serious mistakes of judgment as these and by and large have strictly applied a fair rule, which is to the effect that to qualify as an expert in a malpractice case against a physician, the witness must not only show himself to possess learning and knowledge of the subject of inquiry sufficient to qualify him to speak with authority on the subject, but also a familiarity with the treatment and degree of care and skill of other practitioners in the locality in question, sufficient to qualify him to state whether or not the defendant's treatment was consistent with what other physicians in the exercise of reasonable care might do under similar circumstances. However, since even in California the judge at the trial has sole discretion in passing upon the qualifications of witnesses, the remedies suggested should be of interest to California physicians and surgeons. These suggestions include:

1. Submit all questions of scientific fact to "official experts" who shall conduct a hearing of their own and submit their conclusions to the Court.
2. Submit all issues of scientific fact to a jury of experts rather than a jury as is used for trials generally.
3. Give to the trial judge the right to call experts of his own choosing whenever he feels those of the parties are insufficient.
4. Give to the trial judge a right to comment on the qualifications and the mercenary motive of all of the expert witnesses who have testified.

This latter suggestion is one which is already in effect in California and being used by the judges here more and more as time goes on. It is probable that none of the other suggestions above named are alone sufficient to meet the problem of satisfactorily proving a scientific fact, nor is there much likelihood that they will in the near future be adopted. In the meantime, there is the age-old remedy of procuring an attorney who is thoroughly trained in the art of cross-examination and therefore able to discredit statements of a witness who declares himself to be an expert when he is no such thing.

SPECIAL ARTICLES

INDEX

1. *Poliomyelitis: Some California Statistics.*
2. *Dangers of Self-Doctoring.*
3. *Health Examinations Before Marriage: New California Laws.*
4. *Coronary Occlusion.*
5. *Choosing One's Doctor.*
6. *Sulfanilamide and Sulfapyridin in the Treatment of Various Infections.*

POLIOMYELITIS: SOME CALIFORNIA STATISTICS*

California Poliomyelitis Cases, Deaths and Rates, 1910-1938

Year	Cases	Case Rate*	No. Deaths	Death Rate*
1910	139	5.8	29	1.2
1911	55	2.2	13	.52
1912	531	20.3	123	4.70
1913	90	31.3	33	1.21
1914	56	2.0	27	.95
1915	62	2.1	19	.65
1916	145	4.8	24	.79
1917	69	2.2	26	.82
1918	76	2.3	20	.61
1919	27	0.8	9	.27
1920	75	2.1	30	.85
1921	282	7.5	49	1.3
1922	62	1.6	24	.60
1923	251	6.0	33	.79
1924	192	4.3	34	.77
1925	821	17.7	144	3.1
1926	187	3.9	30	.62
1927	2,298	25.6	224	4.42
1928	303	5.7	81	1.53
1929	170	3.1	46	.83
1930	1,903	33.2	157	2.74
1931	293	5.0	48	.82
1932	191	3.2	31	.52
1933	171	2.8	14	.23
1934	3,396	55.1	110	1.79
1935	837	13.3	67	1.07
1936	388	6.1	38	.59
1937	663	10.2	78	1.19
1938	117	1.8	16	.24

* Per 100,000 population.

California State Department of Public Health Cases of Poliomyelitis Age Distribution

	1923-1927		1928-1932		1933-1937	
	Cases	%	Cases	%	Cases	%
1 year	121	4.40	86	3.01	98	1.80
1-4	917	33.36	671	23.46	882	16.17
5-9	756	27.50	935	32.69	1,399	25.65
10-14	473	17.21	465	16.26	1,046	19.17
15-19	224	8.15	248	8.67	561	10.28
20-24	99	3.60	131	4.58	494	9.06
25-34	77	2.80	180	6.30	591	10.83
35-44	25	.91	57	1.99	217	3.98
45-54	10	.36	26	.91	71	1.30
55+	3	.11	12	.42	34	.62
Adult	10	.36	13	.45	8	.15
?	34	1.24	36	1.26	54	.99
Total	2,749	100	2,860	100	5,455	100

* Statistics from the files of the California State Board of Public Health. For recent articles on poliomyelitis in CALIFORNIA AND WESTERN MEDICINE, see in issue of July, 1939, on pages 12, 16, 19, and 23.

*California State Department of Public Health
Cases of Poliomyelitis
Age Distribution*

	1938		1939*	
	Cases	%	Cases	%
1 year	4	3.42	29	28.71
1-4	17	14.53	26	25.75
5-9	24	20.57	20	19.80
10-14	21	17.95	10	9.90
15-19	17	14.53	7	6.93
20-24	5	4.27	6	5.94
25-34	16	13.68	2	1.98
35-44	5	4.27	1	0.99
45-54	4	3.42	.....	.....
55+	3	2.57	.....	.....
Adult .....	.....	.....	.....	.....
?	1	.85	.....	.....
Total	117	100	101	100

* January-June.

*California State Department of Public Health
Reported Cases of Poliomyelitis—By Counties 1939—
Through First Week of July*

County	January	February	March	April	May	June	July*
Alameda	2	.....	.....
Alpine
Amador
Butte
Calaveras
Colusa
Contra Costa
Del Norte
Eldorado	1	1	3	.....
Fresno
Glenn
Humboldt
Imperial	2	.....	.....	.....	7	1	.....
Inyo
Kern	1	.....	.....	3	4	8	.....
Kings
Lake
Lassen	3	5	3
Los Angeles†	1	.....	.....	.....	.....	.....
Los Angeles City	2	1	1	1	1	10	5
Madera
Marin
Mariposa
Mendocino
Merced
Modoc
Mono	1	1
Monterey
Napa
Nevada	1	.....	.....	.....	.....	.....	.....
Orange	1	4	.....	.....
Placer
Plumas	2	2	.....
Riverside
Sacramento
San Benito	2	7	.....
San Bernardino	3	8	5
San Diego
San Francisco	1	.....	.....	.....	.....	.....	.....
San Joaquin	1	.....
San Luis Obispo	1	.....
San Mateo
Santa Barbara	4	.....	.....
Santa Clara
Santa Cruz	1	.....	.....	.....	.....
Shasta
Sierra
Siskiyou	1	.....	.....	.....
Solano	2	.....
Sonoma
Stanislaus
Sutter
Tehama
Trinity
Tulare	1	.....	.....	.....	.....	.....	.....
Tuolumne
Ventura	4	1
Yolo
Yuba
California‡
Totals	4	4	3	7	32	51	17

* Through first week of July 1939.

† Los Angeles County exclusive of Los Angeles City.

‡ Cases charged to California represent patients ill before entering the State or those who contracted their illness traveling about the State during the incubation period of the disease. These cases are not chargeable to any one locality.

DANGERS OF SELF-DOCTORING*

It is every man's right to doctor himself, but it is not always wise. The main thing to remember is not to temporize: if an illness doesn't respond to home remedies quickly, call a doctor.

When a doctor is sick, he does not treat himself; he goes to another physician. It is not because he cannot take his medicine; it is because he knows that when he is sick his own judgment about himself is not safe. So he calls in a fellow who is well and in whose judgment he has confidence.

The simple truth is, a doctor is not always necessary in the treatment of ills. However, it is highly essential that one know with certainty when to use the doctor's services. This time, it is generally conceded, is in the diagnosis of one's illness. Diagnosis must not be delayed.

Any case may be one of those in which treatment will save life or make it useful or bearable. Those first few hours in an illness are crucial; after that, the doctor's value to a patient depends on a multitude of factors.

Some of the best physicians prescribe very little medicine. Many sick persons are not in need of medicine but rather an opportunity to be removed from a condition which has been detrimental.

The majority of all illnesses resolve without special attention. Home treatment suffices for many of them. Therefore, the wise physician often withholds medicine and gives Mother Nature and Father Time a chance. These facts have long been recognized by cultists who have claimed credit for recoveries that were uninfluenced by their mode of treatment. The doctor of medicine readily acknowledges that many sick persons get well without his ministrations. He claims only to facilitate their recovery, and to watch for danger signs.

There will be somewhere, inside, the scar tissue of the body's victory over whatever germs attacked it—but we, *per se*, will never know about it. In fact, the average body's healing powers are so great that many of us go through the siege of several actual disease entities in a lifetime without ever being aware of it.

The principal value of having a physician is that with a trained and practiced eye he can distinguish between a serious illness requiring prompt and specific treatment and a comparatively mild malady which is self-limited and will get well without particular attention. Money expended for this discriminatory service is exceedingly well spent.

Even in what in many instances the layman would term an emergency, the doctor is of less use than one would suppose. He will probably get there in plenty of time. Except in cases of excessive bleeding, from any opening in the body, those apparently drowned, and sunstroke, the speed with which the doctor makes the bedside is not invariably a vital factor. He should be well on the way to the patient, however, when there is persistent vomiting, a known high fever in the patient, when he has a persistent pain in the abdomen, or when the patient suffers a combination of severe headache plus earache. These latter, of course, and when sores appear on the genitals or anywhere that do not heal readily, there is generally indicated a possible serious complication to follow.

Besides the danger involved in delayed diagnosis, the habit of doctoring one's self has other marked dangers. An important one of these is the danger of forming the drug habit. In some homes the family medicine cabinet is literally jammed to the hinges with drugs and medicines of all kinds, from corn cures to kidney regulators. Even if the exact function and power of each of these nostrums were known, the habit of dosing up with all kinds of sundries from a loaded cabinet is rather a grim sort of pastime.

The second great danger is that of wrong- or overdosing. When the doctor prescribes medicine for a patient, he has

* From the Treasury Department, United States Public Health Service, Washington.

studied that patient carefully beforehand. He has, if he is orthodox in his practice, asked a number of preliminary questions. Many of these, to the patient, will seem not to bear upon the illness. When he has learned all he can about the case, it is his job to decide how much of any particular kind of medicine the patient requires. He understands that doses of medicine of the same quantity do not fit all people. Most people who are not physicians do not know this fact. Thus, when they begin to doctor themselves, they are in danger of taking an overdose of a remedy that may do great harm if taken in quantity.

Doctors have a very good practice of writing directions on bottles of medicine, telling exactly how much and at what hours this medicine should be taken. Normally, when a doctor does this, we follow his directions. Most of us feel that we have called the doctor in in order to get well, and we do as he advises.

Otherwise sensible people, when they begin to doctor themselves, seem to follow the principle that if a small dose does a little good, a large dose will effect a practically instantaneous cure for almost anything. It is a bit optimistic to expect the best results from such a hit-and-miss practice. This sort of reasoning, applied to many medicines, may lead to the grave—often with a lingering death as prelude. This statement is especially true in the case of headache and stomach remedies: one cannot be too cautious about taking them.

Never under any circumstances, where a doctor is available, should one give any kind of medicine to a friend. If you make a mistake, and give him something that makes him very ill or kills him, the law will hold you to account no matter how good your intentions were. If, in a spirit of helpfulness, you give a friend a remedy or recommend a remedy to him that results in his death, the mere fact that you gave this medical advice in the helpful spirit will be of small comfort or help to you before the law. Incidentally, even if your act did not come within the law's notice, the fact holds.

Never guess about your own trouble. If it becomes necessary for you to cure a disease, don't run the risk of prescribing for yourself. Get a doctor's diagnosis. You may hit on the right thing, but the chances are overwhelmingly against any such luck.

It is well to know, in this connection, that there are no real tonic medicines. No medicine gives us strength; only food, rest, exercise, cure of disease and the natural resiliency of the body can do this. Cough medicines, unless heavily charged with narcotics, are seldom very effective; gargling is not a cure for sore throat or respiratory disease. Gas pains and gastric acidity, manifesting themselves as dyspepsia, may sometimes be relieved temporarily by simple remedies; but if there is real underlying disease the sufferer had best seek competent medical attention promptly. If taken often, sleeping drugs lose their effectiveness and may prove accumulatively harmful. An honest doctor will tell you these things.

Don't save your old prescriptions or old bottles of medicine: clean out your family medicine cabinet frequently. Always keep it well lighted. A well stocked cabinet, by the way, will contain these things: Common salt and soda, aromatic spirits of ammonia, mercurchrome or well guarded tincture of iodine, adhesive tape, sterile cotton and gauze bandage, boric acid, thermometer, a hot-water bottle, and an ice bag. These, and a good scissors, suffice for the current use of a normal healthy individual.

The human body is a complex machine working smoothly when the parts are properly balanced. When these parts show signs of being out of order, a good repairman—a good doctor—should first be consulted. Let him study the case and make recommendations, then follow his advice.

Get plenty of fresh air, plenty of sleep, plenty of rest, plenty of recreation. Keep your rooms well ventilated, study your diet, keep your circulation stimulated. At all

times and in all things be moderate. Under all circumstances, keep your head and do not get excited in the face of illness or what may seem to you an emergency. Good health is mainly a matter of good sense.

HEALTH EXAMINATIONS BEFORE MARRIAGE: NEW CALIFORNIA LAWS*

Regarding: Premarital Examinations and Blood Tests; Questions Concerning A. B. 493 and S. B. 173; Physicians May Be Requested to Answer to Patients

Every man and woman marrying in California on and after September 19, 1939, must present to the county clerk a certificate signed by a physician before a marriage license is issued. The certificate will state that an examination, including a standard blood test, has been made and that, in the opinion of the physician, the person is not infected with syphilis or is not in a stage of that disease which may become communicable to the marital partner. The examination and blood test must be made not more than thirty days before a marriage license is issued.

The law was passed by the California Legislature in 1939 to protect the health of persons marrying in this State and to prevent an infected mother from giving her baby syphilis before it is born.

Syphilis hides by imitating other diseases. In many cases, early symptoms are so slight as to go unnoticed by the infected person. Only a physical examination and a blood test will reveal that the disease is present.

How the law works

1. The applicant for a marriage license consults a physician for an examination and blood test. The physician sends a specimen of blood to a laboratory.
2. The laboratory makes a confidential report of the result of the test to the physician and to the California State Department of Public Health and transmits to the physician the certificate form.
3. The physician completes the certificate form and gives it to the applicant.
4. The applicant gives the certificate form to the county clerk, who then issues the marriage license.

Where can I get an examination and blood test?

You may be examined by your family physician, by doctors working in free clinics for the control of venereal diseases, by the medical staff of state and local public hospitals, or through arrangements made with your local health department.

The examination will include a blood test. The doctor making the examination may send the blood specimen to an approved private laboratory, to the free local public health laboratory or, if there is no local public health laboratory in your county, to the free state laboratory for a test.

When should I have the examination done?

It may be made either before or after applying to a county clerk for a marriage license. The examination and blood test must be made not more than thirty days before the day the marriage license is issued.

How accurate are blood tests?

The modern blood test for syphilis done by a competent laboratory is very accurate. Only a physician can interpret a blood test. In case there is any question about the result of the test, the state laboratory is required to make a check.

How soon can I know the results of my test?

That depends upon where you live. If the laboratory is in your city, the physician should know the result the day

* For additional information, see CALIFORNIA AND WESTERN MEDICINE, July, 1939, pages 6, 63 and 71. The questions and answers here printed are from the *Bulletin* of the California State Board of Public Health, July 1, 1939.

after the blood is sent to the laboratory. If the blood has to be sent to another city, or to the state laboratory at Berkeley, it may take as long as a week, depending upon the distance you live from the laboratory. The results of the test may be doubtful and it may be necessary to have another test made before the physician can make a decision. You should allow plenty of time.

Will a blood test always reveal syphilis?

No. Blood does not become positive to a test until about six weeks after infection. Only a physician's examination will reveal syphilis if it is present in this early stage. For the protection of your own health and for the sake of the person you intend to marry, it is important that you be completely honest and frank with the doctor.

If I have syphilis will I be prevented from marrying?

No. If you have received sufficient treatment, you cannot give the disease to the person you marry and the physician will give you a certificate. The result of your blood test does not, in itself, determine if syphilis is in an infectious stage. You may have a four-plus Wassermann and yet not be able to transmit syphilis because you have had sufficient treatment to make you noninfectious. Only a physician can tell if there is danger that you may infect another person.

If I have syphilis which is noninfectious, am I cured?

No. Although you may marry with safety, you are not necessarily cured. The amount of treatment necessary to make you noninfectious is not sufficient to prevent the further progress of the disease and the crippling late stages which so often occur. Your doctor will tell you how much more treatment is necessary. This will depend upon the kind and amount of treatment you have had in the past, the length of time you have had syphilis, and other factors.

In the case of women who have had syphilis, additional precautions must be taken during pregnancy. Most physicians agree that no matter how much treatment the expectant mother has had, it is wise for her to be treated during pregnancy. This is done to insure the birth of a healthy baby, even if the expectant mother has been pronounced cured in the past.

Suppose the doctor refuses to give me a certificate?

Then it will not be possible for you to marry in California until you have had enough treatment to make you noninfectious, unless both of you obtain a court order. The amount of treatment necessary varies with different patients and must be left to the judgment of your physician.

You should start treatment at once. If you are unable to pay the full price for treatment, the State Department of Public Health will furnish your doctor with free drugs so he can treat you at reduced rates. In many places in California there are free clinics for the treatment of patients who cannot afford private care. You can obtain a list of them from your physician, from your local health officer, or from the State Department of Public Health.

What shall I tell the person I want to marry?

Ask your physician to discuss your case with your fiancé. If the person you intend to marry is understanding, the marriage will not be wrecked but will only be postponed. There is a much better chance for a happy marriage if there is a mutual understanding before the ceremony than if one of the persons brings infection into the marriage relationship.

What about persons who come to California from other states to marry?

They must have certificates, too. If it is more convenient to be examined in their own state, they can write to the California State Department of Public Health for a certificate form. This form should be given to the physician who makes the examination and takes the specimen of

blood. The physician then sends the form with the blood specimen to the state laboratory in the state in which the applicant lives. The laboratory fills in a portion of the form with the required information and returns it to the physician with the results of the test. The laboratory reports the result of the test to the California State Department of Public Health. After the physician has completed the certificate, it can be presented to any county clerk in California and a marriage license will be issued if other provisions of the marriage laws are complied with.

If the examination is made in another state, the blood test must be made in the state laboratory of that state. Certificates signed by representatives of private or local public health laboratories in other states will not be accepted.

Will the results of the examination and blood test be public?

No. Results of your examination and blood test are confidential. They are not part of any public record. The law provides:

"Certificates, laboratory statements or reports, applications and court orders, . . . and the information therein contained, shall be confidential and shall not be divulged to or open to inspection by any person other than state or local public health officers or their duly authorized representatives.

"Any person who shall divulge such information or open to inspection such certificates, statements, reports, applications or court orders, without authority, to any person not by law entitled to the same shall be guilty of a misdemeanor."

The certificate which you present to the county clerk will not reveal if you have syphilis. It will merely state that, in the opinion of the physician, "This person is not infected with syphilis or is not in a stage of that disease which may become communicable to the marital partner." The certificate will be filed by the county clerk. It will not be attached to your marriage license.

If you have syphilis, neither the county clerk nor the person performing the ceremony will know you are infected unless you tell them.

Can I marry without having an examination and blood test?

Under certain circumstances. The judge of the superior court in the county in which the license is to be issued is authorized upon joint application of both parties to a marriage to waive the requirements as to medical examinations, laboratory tests and certificates. He may order the county clerk to issue the marriage license if all other requirements of the marriage laws have been complied with, and if the judge is satisfied by affidavit or other proof that an emergency or other sufficient cause for such action exists and that the public health and welfare will not be injuriously affected. The order of the court shall be filed with the county clerk in lieu of the physician's certificate.

Can I marry if a physician's certificate is refused?

Under certain circumstances. If a physician's certificate is refused because one or both persons desiring to marry have syphilis in a communicable stage, both persons wishing to marry may make joint application to a judge of the superior court in the county in which they are to be married. The judge may order the county clerk to issue the license if all other requirements of the marriage laws have been complied with, and if the judge is satisfied by affidavit or other proof that an emergency or other sufficient cause for such an order exists, and the public health and welfare will not be injuriously affected. The order of the court shall be filed by the county clerk in lieu of the certificate form.

In every such case, the clerk of the court shall transmit to the California State Department of Public Health a transcript of the record and the order thereon for such

follow-up by public health authorities as is required by law or is deemed necessary by the state health director.

Are the court proceedings public?

The court when it is deemed necessary may, to the extent authorized by law or rules of the court, order all proceedings instituted to obtain a court order to marry without a physician's certificate to be confidential and private.

Is there any charge for a court order?

No. The law provides that there be no fee charged for court proceedings instituted to obtain a court order to marry without a physician's certificate.

Where can I obtain further information?

From your family physician, your local health officer or by writing the Bureau of Venereal Diseases, State Department of Public Health, at the State Building, San Francisco, or at the State Building, Los Angeles.

CORONARY OCCLUSION*

Deaths in Philadelphia, Pennsylvania, due to coronary occlusion (blockage of main artery carrying blood to the heart muscle) jumped 126 per cent between 1933 and 1937 in a total of 5,116 cases reported from this cause.

The outstanding consideration in this increase in reported mortality, according to Dr. O. F. Hedley, Past Assistant Surgeon, United States Public Health Service (*Public Health Reports*, June 9, 1939), is improvement in diagnosis. However, the writer raises the question of whether *all* the mortality from the disease may be attributed to this cause.

The problem of "fads" in diagnosis—that is, in diagnostic terms—probably explains in part the increase in reported mortality in Philadelphia. Although the aging of the population had an influence on the increased mortality from this cause, according to the report, neither is this factor sufficient to account for the increase, nor can it be attributed to any great extent to the aging of the foreign-born over and above that of the general population.

"This leaves two important considerations," says Doctor Hedley. "Improved diagnosis and the possibility of an actual increase in mortality from this cause. Of these factors, increased recognition is by far the more outstanding. In the entire annals of medical history, it is doubtful whether there was ever a disease which has been better publicized than acute coronary occlusion during the past fifteen years. At first it was regarded as a rather rare condition; later as a diagnosis which could only be made by specially qualified experts. Now it is being made by nearly every general practitioner.

"Although there were numerous refinements in electrocardiographic technique during this period, the diagnosis of acute coronary occlusion is usually based on the clinical picture as seen at the bedside, or on a history of previous attacks. While there has been a spread of knowledge concerning this disease to the mass of practitioners seeing patients in the home, by the beginning of 1933 medical staffs of large metropolitan hospitals, especially teaching institutions, usually had a very definite conception of this disease. Improvement in diagnosis in hospital practice has consisted largely in a better recognition of the fact that coronary occlusive phenomena occur more frequently during the course of so-called 'degenerative cardiovascular diseases.'"

Among other features difficult to explain solely on the basis of improved diagnosis, according to the report, is why the reported mortality from acute coronary occlusion increased so much more among white persons than among negroes. There was an increase of 137 per cent in the

reported mortality from all sources among white persons in 1937 over 1933, while among negroes the increase was only 22 per cent.

"The problem of sudden death from heart disease, especially among white males," says Doctor Hedley, "should be made the subject of well-planned research projected over a number of years. The chief importance of this problem from both a clinical and a public health point of view consists in the number of deaths among persons in the forty to sixty-nine-year age period."

"For the present," concludes Doctor Hedley, "the possibility of a certain amount of actual increase in acute coronary occlusion should be viewed with an open mind. It is possible that there are factors, besides the aging of the population and improvement in diagnosis, which may be responsible for an increase in this condition among the urban population in particular. These factors may operate either to predispose to coronary atherosclerosis or to result in the occlusion of coronary arteries previously diseased. Until more is known concerning this extremely intricate phenomenon which is responsible for so many deaths from middle-aged persons, the increase in deaths reported from so many different sources should not be dismissed summarily as due to the aging of the population, to improved standards of clinical diagnosis, or to statistical artifacts due to changes in terminology."

Background.—Interference with the blood supply to any part of the body seriously affects its function: thus, diminution of the caliber of a coronary artery results in serious heart impairment. Fatigue results, shortness of breath, swelling of the feet and ankles, cardiac asthma, angina pectoris, and other signs and symptoms of heart disease.

Sometimes one of the coronary arteries or its branches becomes rather suddenly blocked or occluded—usually the result of the formation of a "thrombosis," or blood clot, inside a vessel previously diseased as a result of hardening of a coronary artery. When this occurs, the part of the heart muscle receiving its blood supply from the affected artery becomes suddenly functionless, resulting in a very serious heart condition.

Acute coronary occlusion is more common among city dwellers than persons living in rural areas. Sedentary occupations are an important predisposing factor. It is especially frequent among professional men, being a leading cause of deaths among physicians. While obesity is commonly encountered in persons with this disease, exceptions are quite common. Alcohol does not appear to be an important factor. Excessive use of tobacco may play a rôle, especially in younger individuals.

The severity of the attack depends on a number of factors—size and the location of the vessel affected, amount of cardiac tissue present but out of commission, age of the patient, his general physical condition, and other similar considerations.

Sometimes death occurs immediately. Deaths from "heart attacks" of more or less prominent citizens on the golf links, at home, or in their offices, the accounts of which appear almost daily in the newspapers, are usually due to this cause. More often, these attacks are not immediately fatal, but result in a chain of clinical manifestations well known to the medical profession.

The attack may occur at any time—at work, rest, or play. Physical exertion to which the patient has been unaccustomed may precipitate an attack. Onset after heavy meals is frequent enough that coronary occlusion is sometimes mistaken for "acute indigestion." Many attacks begin during sleep.

An attack of acute coronary occlusion is as much an emergency as an attack of appendicitis. A physician must be secured without delay. The treatment of heart disease is not for amateurs. Furthermore, no single form of treatment is applicable to every case. Emergencies arise which

* From the Treasury Department, United States Public Health Service, Washington.

tax the professional skill even of the best specialists in this field.

Concerning the increase in deaths from this cause, Dr. Paul D. White, one of America's leading cardiologists, states: "There must be a factor which is new, and I believe it to be found in the mad pace of American life today. A halt must be called."

The answer to the increase in deaths from this cause, says the Public Health Service, "lies in moderation in all things—work, play, food, drink; in avoiding overfatigue, obesity, and flabbiness from lack of muscular exercise. While life expectancy at birth has increased some twenty-five years the last century, the span of life has not increased. Life expectancy for persons past forty years of age, if anything, has become diminished. There is a crying need to slacken the tempo of our lives. Even in our recreations there is little rest."

"Considerable emphasis can be placed upon the prevention of this disease through periodic heart examinations of individuals over forty years of age. This examination should include electrocardiogram and such other means of precision as may be available to the examiners. It may be emphasized that violent exercise—such as eighteen-hole golf games and similar diversions—at least for men over forty, should not be indulged in unless the heart is in excellent condition."

CHOOSING ONE'S DOCTOR*

It has been said that "it requires a medical education to enable a man to choose a good doctor."

This is hardly true.

The day, of course, when the family physician was almost a member of the family is about gone. Such relationships still exist in the hinterlands, and in rare cases in urban communities. These intimacies, however, are mostly reminders of an older day.

This is not to infer, on the other hand, that the choice of a dependable family physician is next to impossible. There are certain fundamental questions about the modern doctor to which one may seek answers, and upon these base an entirely satisfactory choice. In general, here is a good procedure.

If you plan to move into a new community, inquire of your own doctor at your last residence, asking him to recommend a practitioner in the new town to which you are going. To check further, ask the secretary of your county medical society for a list of competent practitioners, ask the health officer of your city or county, or the secretary of the state medical association.

When first entering the new community, if you are not already supplied with doctors' names, ask at the hospital or local health office, or call the secretary of the local medical society and obtain a list of the general practitioners. Then make it your business to meet these men. Make specific and direct inquiries about what you want to know. If you are connected with some well-established fraternal, church, or business group, make inquiry among your associates. The good physician will not only not object to these personal inquiries, he will welcome them.

Here are questions to ask in connection with choosing a new physician:

1. Is he a graduate of a Class "A" school of medicine (as defined by the American Medical Association), or of a medical school known by recognized authorities as one of the best at the time he was graduated?
2. Is he a licensed practitioner in the state where he has office?
3. Has he had actual training as an interne in a hospital, or been associated with a practicing physician long enough to have obtained practical education in medicine?

4. Is he an active member of his local, county, and state medical society and, through them, of the American Medical Association, or any other recognized, organized body of physicians?

5. Is he of good personal habits, regarded by his fellow citizens as a desirable member of the community?

If he is the physician to fellow practitioners, that is an excellent guarantee of his ability. The fact that he is a member of the staff of a well-conducted hospital also indicates that he is usually a capable doctor.

These, too, are points to remember.

An ethical physician does not advertise his methods or cures in newspapers, give out circulars concerning his work or fees, indiscriminately distribute his picture, or put large signboards in his windows or outside his office to advertise his merits or wares.

Before considering any specialist, *per se*, consult your regular doctor and let him select the man if one is necessary.

No good doctor guarantees a cure; avoid him who will "take no money until a cure is brought about": this is a trick to snare the unwary. Likewise, avoid him who requires the fee in advance to cure a chronic disease.

Choose the doctor who works directly from his established residence or office and does not travel out of town or across state borders to seek his patients.

Avoid the boaster: a good doctor does not brag of his cures or suggest that they are made by secret methods. It is well to remember that there are no secrets in the medical profession.

The straightforward practitioner will not restrict his methods of treatment by dogmatic adherence to any "system" which declares all diseases are caused, for example, by colonic, liver, dietary, podal, mental, or any other type of single defect. Medical science recognizes no royal road to recovery, but proceeds upon such facts as general science has discovered and upon such theories as it may use in the absence of proved fact. It expands and constantly changes through added discovery. What is thought good practice today may, as the result of a new discovery, be replaced by a different practice tomorrow. It is through the testing periods of these new discoveries that so-called "medical fads" have their heyday.

After you have made your choice, it is wise policy to stick to one doctor.

Distinguished Service Medal.—Concerning the second medal that was awarded for distinguished service to scientific medicine at the opening general meeting at the recent St. Louis session, *The Journal of the American Medical Association* states:

"The recipient of this medal is chosen by a process of selection which insures choice of an outstanding physician and scientist. Any physician who wishes to nominate a candidate for the Distinguished Service Medal may send his nomination to the chairman of the committee, Dr. E. L. Henderson of Louisville, Kentucky. This committee sends five nominations to the Board of Trustees of the American Medical Association, which then selects three names from the five. The three names are presented to the House of Delegates at the opening of the meeting, which will on this occasion be Monday morning, May 15. The House of Delegates votes immediately and the recipient of the honor is presented with the medal on the following night.

"Last year the first medal was awarded to Dr. Rudolph Matas, distinguished surgeon of New Orleans.

"By this award the American Medical Association indicates its recognition of scientific advancement as one of the main functions of organized medicine. Fellows of the Association can cooperate by sending to the chairman of the committee the names of those whom they believe to be entitled to such an honor, together with a record of their services to science."

* From the Treasury Department, United States Public Health Service, Washington, May 26, 1939.

SULFANILAMIDE AND SULFAPYRIDIN IN THE TREATMENT OF VARIOUS INFECTIONS*

By CHESTER S. KEEFER, M.D.
Boston, Massachusetts

RESULTS OF TREATMENT OF PNEUMONIA WITH SULFAPYRIDIN

From the results that have been published concerning the effect of sulfapyridin in the treatment of pneumonia in man, an attempt has been made to establish two points: (1) that fatality rates are reduced following the use of the drug, and (2) that the duration of the disease has been shortened. For example, in a series of 100 cases reported by Flippin, Lockwood, Pepper, and Schwartz,¹⁹ a fatality rate of 4 per cent is recorded. If the three fatal cases, which were excluded because they were inadequately treated, are included, the fatality rate in the 103 observed cases is 6.7 per cent. Of these cases, only eight showed bacteremia. Other series of cases report fatality rates varying between 1.7 and 10 per cent. Unfortunately, many of the reports do not reveal the type of pneumococcus or the frequency of bacteremia, and the fatality rate in the control series is often stated to be between 1.7 and 22 per cent. One cannot decide, therefore, on a basis of the cases reported so far, how much one can influence the course of pneumococcal pneumonia with sulfapyridin alone in a statistically significant group with bacteremia and an expected high death rate.

The results of Finland and his associates²⁰ in our clinic, which were reported at the recent meeting of the American College of Physicians, are significant, since they include the results of the use of serum and sulfapyridin, alone and in combination during the same period, and information concerning age distribution and the incidence of bacteremia is available for all three groups. They found that the fatality rate in 167 cases which were treated with specific serum was 13 per cent. The incidence of bacteremia in this group was 29 per cent and, as usual, it was somewhat higher in the older-age groups. Of the ninety-five patients treated with sulfapyridin, the fatality rate was 15 per cent. However, the incidence of bacteremia in this group was only 17 per cent and, for patients over 60 years of age, only 14 per cent. This indicates quite definitely that the infection in this group was of a milder nature than the group that was treated with serum alone. The 15 per cent fatality rate in this group probably indicates a reduction in the expected fatality rate, but more cases are needed before one can be certain.

In a third group of eighty cases which were treated with both sulfapyridin and specific serum, the fatality rate was 22 per cent. This group contained a greater number of older patients and the incidence of bacteremia was 50 per cent, which is about twice that in the patients treated with serum alone and about three times that with sulfapyridin alone. From all previous experience, it would be expected that the fatality rate in such a group of patients would be considerably greater. Eighty-one per cent of the patients were over 40 years of age and 34 per cent were over 60 years of age. Among the twenty-seven patients over 60, sixteen or 59 per cent had bacteremia. From past experience in similar cases not treated by specific measures, the average fatality rate in this age group with bacteremia is between 75 and 90 per cent; with specific serum treatment it is about 50 per cent.

* The discussion appearing in this section of CALIFORNIA AND WESTERN MEDICINE is an appendix to the article by Doctor Keefer, also printed in this issue. (See on page 81, and also the footnote on page 84.)

19. Flippin, H. F., Lockwood, J. S., Pepper, D. S., and Schwartz, L.: The Treatment of Pneumococcal Pneumonia with Sulfapyridin—A Progress Report on Observations in One Hundred Cases, *J. A. M. A.*, 112:529, 1939.

20. Finland, M., Spring, W. C., and Lowell, F. C.: Specific Serotherapy and Chemotherapy of the Pneumococcal Pneumonias, *Ann. Int. Med.*, 12:1816, 1939.

These observations would seem to indicate that the most effective way to use sulfapyridin is in combination with specific serum. They also suggest that sulfapyridin alone may reduce the fatality rate, especially in the milder cases in which the incidence of bacteremia is low.

The reports of Barnett, Hartmann, Perley, and Ruhoff,²¹ and McKhann,²² in the treatment of pneumococcal infections in infants and children with sulfapyridin, indicate that the drug frequently causes a definite improvement in the course of the disease within twenty-four to thirty-six hours after starting treatment.

Dosage.—In administering sulfapyridin, it is well to remember that the drug is quite insoluble and may be absorbed irregularly and slowly from the gastrointestinal tract, so that it is necessary to do quantitative examinations in the blood at frequent intervals. It is desirable to obtain a concentration in the blood of at least 5 to 7 milligrams of free sulfapyridin per 100 cubic centimeters whenever possible, and to attempt to keep this level constant until clinical improvement is definite, and then to continue it for at least three to five days. Since the sulfapyridin precipitates out of solution when the concentration is below 30 milligrams per cent, it is highly desirable to keep the fluid output up to at least 2,500 to 3,000 cubic centimeters a day.

The plan for dosage that we have used is to give 5 grams during the first 24-hour period, and then 4 grams a day until clinical improvement occurs. We have generally continued the drug, when it is given alone, for three or four days after the temperature is normal, the pulse rate has been reduced, and the signs in the lung show no evidence of spreading. Very often, one finds that the fever disappears within twenty-four and thirty-six hours, but the pulse rate continues to be elevated, and the patients still feel and look ill. This is in striking contrast to the appearance of the patient who makes a prompt recovery following specific serum treatment, since, when the temperature falls, the patient feels and looks well.

When sulfapyridin is given together with serum and the results are satisfactory, it is often possible to discontinue the drug within thirty-six hours after it is started, since many of the patients are greatly improved within this time.

Side Effects of Sulfapyridin.—A most troublesome side-effect is the anorexia, nausea, and vomiting* which occur in most of the patients. This symptom is one that may necessitate discontinuing the drug. If it occurs and the drug is not discontinued, it is imperative that the fluid intake be maintained by intravenous injection, since we have seen oliguria and nitrogen retention follow the vomiting attacks in these patients. Another point worth noting is the fact that, when vomiting occurs, very little of the drug may be absorbed, so that frequent determinations of sulfapyridin in the blood are necessary.

The other side-effects from this drug are the same as those following sulfanilamide, such as agranulocytosis, hemolytic anemia, and toxic hepatitis; and perhaps, in addition, renal damage.

All of these features must be looked for constantly in every patient receiving sulfapyridin.

SUMMARY

In summing up the results of sulfapyridin treatment of pneumococcal pneumonias, the following tentative statements would seem justifiable:

Sulfapyridin has a striking effect on the course of pneumococcal infections in infants and children at an age period when both the fatality rate and the incidence of bacteremia are low. In adults, the best results seem to be obtained when sulfapyridin is used along with specific serum. This has been brought out by Finland, Spring, and Lowell²⁰ in a

(Continued in Back Advertising Section, Page 46)

21. Barnett, H. L., Hartmann, A. F., Perley, A. M., and Ruhoff, M. B.: The Treatment of Pneumococcal Infections in Infants and Children with Sulfapyridin, *J. A. M. A.*, 112:518, 1939.

22. McKhann, C. F.: Personal communication.

* Inasmuch as the vomiting is due to the central action of the drug, we have not found any way of preventing it.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XII, No. 8, August, 1914

From Some Editorial Notes:

Tuberculosis Number.—The special "tuberculosis day" at the last meeting of the State Society, in Santa Barbara, was a very attractive feature of the session and drew an excellent attendance. Some of the papers evoked considerable discussion, and all of them were well worth listening to and thinking about. It is, therefore, with much pleasure that they are here gathered together and presented in one number of the JOURNAL where they may be the more easily referred to in the future. . . .

* * *

A Helping Hand.—Quite a number of new advertisers have come along and taken space in your JOURNAL recently, and are to that extent helping you. Are you helping them? Have you looked through the advertising pages and noted the new advertisements? Occasionally an advertisement appears as a test of whether interest is taken in the JOURNAL advertisers or not. . . .

Please look through the advertising pages of each issue, and take as much interest in your advertisers as they take in your JOURNAL. . . .

Certainly, if you want to have a strong JOURNAL and a strong Society, one of your duties is to help in every little way that you can; this is one way in which you can help, and help a whole lot, without going to any expense or trouble to do it. Read your own advertisements and deal with your own advertisers.

* * *

Tuberculosis.—No more interesting session of the recent meeting in Santa Barbara, both in point of attendance and in importance, took place than that prepared by the California Association for the Study and Prevention of Tuberculosis. The papers and the discussions thereon gave evidence that the profession is awakening to the fact that tuberculosis, far from being a solved problem, is one of the greatest, if not the greatest, questions at present confronting it. It is to the discredit of scientific medicine that the great sociologic and economic questions involved have been left of late largely for their solution to the laity. Not only is this true, but the profession as a body has been inattentive to the problems of early recognition and scientific treatment of the disease. The charge can be brought more directly home when one sees the indifference manifested by the medical schools in the teaching of the subject. . . .

* * *

American Medical Association—San Francisco, 1915.—Largely to aid in commemorating the fact that scientific medicine and sanitation based thereon dug the Panama Canal, the American Medical Association, by its House of Delegates at the Atlantic City session in June last, voted to hold the meeting for 1915 at San Francisco. The time will probably be the third week in June, 1915. This will be the fourth time the Association has met on the Pacific Coast; in 1894 it met in San Francisco and all of the various sections held their meetings under one roof; in 1905 it met at Portland, Oregon; in 1911 it met in Los Angeles; next year it will again meet in San Francisco, after twenty-one years, and again all the sections will meet under one roof. The Exposition directors have kindly placed the huge audi-

(Continued in Front Advertising Section, Page 15)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M. D.
Secretary-Treasurer

Board Proceedings

A regular meeting of the Board of Medical Examiners was held in Native Sons Hall, July 10 to 13, 1939, at which approximately 240 applicants, consisting of physicians and surgeons, drugless practitioners and chiropodists, wrote the three-day, nine-subject examination.

The following changes in status of licentiates were made:

Harry Asher (chiropodist), license revoked July 13, following hearing on alleged illegal operation.

Sharon M. Atkins, M.D., license restored July 10, placed on probation for five years.

Henry Gross (naturopath) found guilty July 12 of practicing beyond the limitation of his license and placed on probation for a period of three years.

Shuah Milton Mann, M.D., license revoked July 13, following hearing of charges of aiding and abetting, also alleged illegal operation.

Woodward B. Mayo, M.D., certificate restored July 13, placed on probation for a period of five years.

Virgil McCombs, M.D., license revoked July 11, following hearing of charges of alleged use of fictitious name and aiding and abetting.

Harold E. Morrison, M.D., certificate (revoked October 19, 1937) restored July 10.

James T. Murray, M.D., license revoked July 13 on a charge of alleged addiction to narcotics.

Walter M. Thorne, M.D., license revoked July 13 on a charge of alleged addiction to narcotics.

Jesse C. Ross, M.D., license restored July 10 because of reversal on appeal of original conviction on which his license was revoked February 11, 1937.

Thomas Franklin Thorp, M.D., was on July 13 found guilty of aiding and abetting and placed on probation for a period of two years.

Donaciano Trevino, M.D., license revoked July 11, based on conviction of violation of the Harrison Narcotic Act.

James Cushing Weld, M.D., license revoked July 13, based on aiding and abetting, also use of fictitious name.

Orel Alvin Welsh, M.D., license revoked July 12, based on the record of his conviction of alleged illegal operation.

* * *

News

"On July 1 the California State Board of Chiropractic Examiners will require students in chiropractic schools to submit finger prints and photographs. Copies also will be sent to the civilian files of the Federal Bureau of Investigation in Washington, D. C. Dr. Joseph T. Stacy of Sacramento, secretary of the board, described the step as a protection for the public. The board is trying to eliminate the chances of stolen or forged certificates. . . . The chiropractors of this State thus will become the first professional group in the country to use the finger-print system of protecting the public, according to Doctor Stacy. . . . The Board of (Chiropractic) Examiners is to be congratulated on this step. Finger-printing of professional people will do much to wipe out the public aversion to finger-printing and will hasten the day when universal finger-printing will be the practice." Editorial, Sacramento Union, June 26, 1939.)

(Continued in Front Advertising Section, Page 26)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.